Colorado Department of Public Health and Environment

OPERATING PERMIT

Young Gas Storage Company, Ltd. - Young Compressor Station

First Issued: May 1, 1999
Renewed: July 1, 2013

AIR POLLUTION CONTROL DIVISION
COLORADO OPERATING PERMIT

FACILITY NAME:	Young Compressor Station	OPERATING PERMIT NUMBER
FACILITY ID:	0870051	**96OPMR177**
RENEWED:	July 1, 2013	
EXPIRATION DATE:	July 1, 2018	
MODIFICATIONS:	See Appendix F of Permit	

Issued in accordance with the provisions of Colorado Air Pollution Prevention and Control Act, 25-7-101 et seq. and applicable rules and regulations.

ISSUED TO:

Young Gas Storage Company, Ltd.
P.O. Box 1087
Colorado Springs, CO 80944

PLANT SITE LOCATION:

S14, T4N, R58W
Morgan County

INFORMATION RELIED UPON

Operating Permit Renewal Application Received: July 26, 2010

And Additional Information Received: February 4, 2011, and September 10, October 11 and November 6, 2012

Nature of Business: Natural Gas Transmission and Storage
Primary SIC: 4922

RESPONSIBLE OFFICIAL (PRIMARY)
Name: Matthew J. Mask
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Title: Vice President Operations
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SUBMITTAL DEADLINES

Semi-Annual Monitoring Periods:	July 1 – December 31, January 1 – June 30
Semi-Annual Monitoring Reports:	Due on Feb. 1, 2014 & August 1, 2014 & subsequent years
First Annual Compliance Period:	July 1 – December 31
Subsequent Annual Compliance Periods:	January 1 - December 31
Annual Compliance Certifications:	Due on February 1, 2014 and subsequent years

Note that the Semi-Annual Monitoring Reports and Annual Compliance Certifications must be received at the Division office by 5:00 p.m. on the due date. Postmarked dates will not be accepted for the purposes of determining the timely receipt of those reports/certifications.

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SECTION I - General Activities and Summary

1. Permitted Activities

1.1 This facility consists of three (3) natural gas-fired reciprocating internal combustion engines, a triethylene glycol dehydrator, and a facility flare. The reciprocating engines are used to drive compressors, which compress pipeline quality natural gas for injection into underground storage during off-peak delivery periods or for delivery to pipeline during periods of peak demand. Upon withdrawal, natural gas may be dehydrated by the dehydration unit and/or processed to remove natural gas liquids. The natural gas liquid product is collected, stored in tanks and transported offsite via trucks. The facility flare is used to combust the vent gases from the dehydration unit flash tank and still vent and fuel gas from the flare pilot light. Vent gases from the glycol dehydrator can also be routed to the regenerator burner, reducing the burner's natural gas fuel consumption. In addition, a small boiler and two (2) small process heaters that have been included in Section II of the permit.

The facility is located approximately 3.5 miles north of Interstate 76 on County Road 17 in Morgan County. The area in which the plant operates is designated as attainment for all criteria pollutants.

There are no affected states within 50 miles of the plant. There are no Federal Class I designated areas within 100 kilometers of the plant.

1.2 Until such time as this permit expires or is modified or revoked, the permittee is allowed to discharge air pollutants from this facility in accordance with the requirements, limitations, and conditions of this permit.

1.3 This Operating Permit incorporates the applicable requirements contained in the underlying construction permits, and does not affect those applicable requirements, except as modified during review of the application or as modified subsequent to permit issuance using the procedures found in Regulation No. 3, Part C. These Part C procedures meet all applicable substantive New Source Review requirements of Part B. Any revisions made using the provisions of Regulation No. 3, Part C shall become new applicable requirements for purposes of this operating permit and shall survive reissuance. This permit incorporates the applicable requirements (except as noted in Section II) from the following construction permits: 94MR130-1, 94MR130-2, 94MR130-3 and 94MR130-4.

1.4 All conditions in this permit are enforceable by US Environmental Protection Agency, Colorado Air Pollution Control Division (hereinafter Division) and its agents, and citizens unless otherwise specified. **State-only enforceable conditions are:** Permit Condition Number(s): Section IV - Conditions 3.g (last paragraph), 14 and 18 (as noted)

1.5 All information gathered pursuant to the requirements of this permit is subject to the Recordkeeping and Reporting requirements listed under Condition 22 of the General Conditions in Section IV of this permit.

2. Alternative Operating Scenarios

Temporary and Permanent Engine Replacement (10/12/12 version). The following Alternative Operating Scenario (AOS) for the temporary and permanent replacement of natural gas fired reciprocating internal combustion engines has been reviewed in accordance with the requirements of Regulation No. 3., Part A, Section IV.A, Operational Flexibility-Alternative Operating Scenarios, Regulation No. 3, Part B, Construction Permits, and Regulation No. 3, Part D, Major Stationary Source New Source Review and Prevention of Significant Deterioration, and it has been found to meet all applicable substantive and procedural requirements. This permit incorporates and shall be considered a Construction Permit for any engine replacement performed in accordance with this AOS, and the permittee shall be allowed to perform such engine replacement without applying for a revision to this permit or obtaining a new Construction Permit.

2.1 Engine Replacement

The following AOS is incorporated into this permit in order to deal with a compressor engine breakdown or periodic routine maintenance and repair of an existing onsite engine that requires the use of either a temporary or permanent replacement engine. "Temporary" is defined as in the same service for 90 operating days or less in any 12 month period. "Permanent" is defined as in the same service for more than 90 operating days in any 12 month period. The 90 days is the total number of days that the engine is in operation. If the engine operates only part of a day, that day shall count as a single day towards the 90-day total. The compliance demonstrations and any periodic monitoring required by this AOS are in addition to any compliance demonstrations or periodic monitoring required by this permit.

All replacement engines are subject to all federally applicable and state-only requirements set forth in this permit (including monitoring and record keeping), and shall be subject to any shield afforded by this permit.

The results of all tests and the associated calculations required by this AOS shall be submitted to the Division within 30 calendar days of the test or within 60 days of the test if such testing is required to demonstrate compliance with NSPS or MACT requirements. Results of all tests shall be kept on site for five (5) years and made available to the Division upon request.

The permittee shall maintain a log on-site and contemporaneously record the start and stop date of any engine replacement, the manufacturer, date of manufacture, model number, horsepower, and serial number of the engine(s) that are replaced during the term of this permit, and the manufacturer, model number, horsepower, and serial number of the replacement engine. In addition to the log, the permittee shall maintain a copy of all Applicability Reports required under Condition 2.1.2 and make them available to the Division upon request.

2.1.1 The permittee may **temporarily** replace an existing compressor engine that is subject to the emission limits set forth in this permit with an engine that is of the same manufacturer, model, and horsepower or a different manufacturer, model, or horsepower as the existing engine without modifying this permit, so long as the temporary replacement engine complies with all permit limitations and other

requirements applicable to the existing engine. Measurement of emissions from the temporary replacement engine shall be made as set forth in Condition 2.2.

The permittee may temporarily replace a grandfathered or permit exempt engine or an engine that is not subject to emission limits without modifying this permit. In this circumstance, potential annual emissions of NO_X and CO from the temporary replacement engine must be less than or equal to the potential annual emissions of NO_X and CO from the original grandfathered or permit exempt engine or for the engine that is not subject to emission limits, as determined by applying appropriate emission factors (e.g. AP-42 or manufacturer's emission factors).

2.1.2 The permittee may **permanently** replace the existing compressor engine for the emission points specified in Table 1 with the manufacturer, model, and horsepower engines listed in Table 1 without modifying this permit so long as the permanent replacement engine complies with all permit limitations and other requirements applicable to the existing engine as well as any new applicable requirements for the replacement engine. Measurement of emissions from the permanent replacement engine and compliance with the applicable emission limitations shall be made as set forth in Condition 2.2.

An Air Pollutant Emissions Notice (APEN) that includes the specific manufacturer, model and serial number and horsepower of the permanent replacement engine shall be filed with the Division for the permanent replacement engine within 14 calendar days of commencing operation of the replacement engine. The APEN shall be accompanied by the appropriate APEN filing fee, a cover letter explaining that the permittee is exercising an alternative operating scenario and is installing a permanent replacement engine, and a copy of the relevant Applicability Reports for the replacement engine. Example Applicability Reports can be found in Appendix G. This submittal shall be accompanied by a certification from the Responsible Official indicating that "based on the information and belief formed after reasonable inquiry, the statements and information included in the submittal are true, accurate and complete".

This AOS cannot be used for permanent engine replacement of a grandfathered or permit exempt engine or an engine that is not subject to emission limits.

The permittee shall agree to pay fees based on the normal permit processing rate for review of information submitted to the Division in regard to any permanent engine replacement.

Table 1

Emission Point	Replacement Engine	Periodic Monitoring	Stack Test	MACT Status
CG-7100	Exact replacement of engine.	See Footnote 1	No	Facility is a major source for purposes of the RICE MACT
CG-7200	Exact replacement of engine and associated control device	See Footnote 1	No	
CG-7300	Exact replacement of engine and associated control device	See Footnote 1	No	

[1] Monitoring is as specified in Section II.1 of this permit

2.2 Portable Analyzer Testing

Note: In some cases there may be conflicting and/or duplicative testing requirements due to overlapping Applicable Requirements. In those instances, please contact the Division Field Services Unit to discuss streamlining the testing requirements.

Note that the testing required by this Condition may be used to satisfy the periodic testing requirements specified by the permit for the relevant time period (i.e. if the permit requires quarterly portable analyzer testing, this test conducted under the AOS will serve as the quarterly test and an additional portable analyzer test is not required for another three months).

The permittee may conduct a reference method test, in lieu of the portable analyzer test required by this Condition, if approved in advance by the Division.

The permittee shall measure nitrogen oxide (NO_X) and carbon monoxide (CO) emissions in the exhaust from the replacement engine using a portable flue gas analyzer *within seven (7) calendar days of commencing operation of the replacement engine*.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's web site at: http://www.colorado.gov/cs/Satellite/CDPHE-AP/CBON/1251596520270.

Results of the portable analyzer tests shall be used to monitor the compliance status of this unit.

For comparison with an annual (tons/year) or short term (lbs/unit of time) emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

For comparison with a short-term limit that is either input based (lb/mmBtu), output based (g/hp-hr) or concentration based (ppmvd @ 15% O_2) that the existing unit is currently subject to or the

replacement engine will be subject to, the results of the test shall be converted to the appropriate units as described in the above-mentioned Portable Analyzer Monitoring Protocol document.

If the portable analyzer results indicate compliance with both the NO_X and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the NO_X and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the NO_X or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the NO_X and CO emission limitations or until the engine is taken offline.

2.3 Applicable Regulations for Permanent Engine Replacements

2.3.1 Reasonably Available Control Technology (RACT): Reg 3, Part B § II.D.2

All permanent replacement engines that are located in an area that is classified as attainment/maintenance or nonattainment must apply Reasonably Available Control Technology (RACT) for the pollutants for which the area is attainment/maintenance or nonattainment. Note that both VOC and NO_X are precursors for ozone. RACT shall be applied for any level of emissions of the pollutant for which the area is in attainment/maintenance or nonattainment, except as follows:

In the Denver Metropolitan PM_{10} attainment/maintenance area, RACT applies to PM_{10} at any level of emissions and to NO_X and SO_2, as precursors to PM_{10}, if the potential to emit of NO_X or SO_2 exceeds 40 tons/yr.

For purposes of this AOS, the following shall be considered RACT for natural-gas fired reciprocating internal combustion engines:

VOC: The emission limitations in NSPS JJJJ
CO: The emission limitations in NSPS JJJJ
NO_X: The emission limitations in NSPS JJJJ
SO_2: Use of natural gas as fuel
PM_{10}: Use of natural gas as fuel

As defined in 40 CFR Part 60 Subparts GG (§ 60.331) and 40 CFR Part 72 (§ 72.2), natural gas contains 20.0 grains or less of total sulfur per 100 standard cubic feet.

2.3.2 Control Requirements and Emission Standards: Regulation No. 7, Sections XVI. and XVII.E (State-Only conditions)

Control Requirements: Section XVI

Any permanent replacement engine located within the boundaries of an ozone nonattainment area is subject to the applicable control requirements specified in Regulation No. 7, section XVI, as specified below:

Rich burn engines with a manufacturer's design rate greater than 500 hp shall use a non-selective catalyst and air fuel controller to reduce emission.

Lean burn engines with a manufacturer's design rate greater than 500 hp shall use an oxidation catalyst to reduce emissions.

The above emission control equipment shall be appropriately sized for the engine and shall be operated and maintained according to manufacturer specifications.

The source shall submit copies of the relevant Applicability Reports required under Condition 2.1.2.

Emission Standards: Section XVII.E – State-only requirements

Any permanent engine that is either constructed or relocated to the state of Colorado from another state, after the date listed in the table below shall operate and maintain each engine according to the manufacturer's written instructions or procedures to the extent practicable and consistent with technological limitations and good engineering and maintenance practices over the entire life of the engine so that it achieves the emission standards required in the table below:

Max Engine HP	Construction or Relocation Date	Emission Standards in G/hp-hr		
		NO_X	CO	VOC
100<Hp<500	January 1, 2008	2.0	4.0	1.0
	January 1, 2011	1.0	2.0	0.7
500≤Hp	July 1, 2007	2.0	4.0	1.0
	July 1, 2010	1.0	2.0	0.7

The source shall submit copies of the relevant Applicability Reports required under Condition 2.1.2.

2.3.3 NSPS for spark ignition internal combustion engines: 40 CFR 60, Subpart JJJJ

A permanent replacement engine that is manufactured on or after 7/1/09 for emergency engines greater than 25 hp, 7/1/2008 for engines less than 500 hp, 7/1/2007 for engines greater than or equal to 500 hp except for lean burn engines greater than or equal to 500 hp and less than 1,350 hp, and 1/1/2008 for lean burn engines greater than or equal to 500 hp and less than 1,350 hp are subject to the requirements of 40 CFR Part 60, Subpart JJJJ. An analysis of applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in the Applicability Reports required under Condition 2.1.2. Any testing required by the NSPS is in addition to that required by this AOS. Note that the

initial test required by NSPS Subpart JJJJ can serve as the testing required by this AOS under Condition 2.2, if approved in advance by the Division, provided that such test is conducted within the time frame specified in Condition 2.2.

Note that under the provisions of Regulation No. 6. Part B, section I.B. that Relocation of a source from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of Regulation No. 6 (i.e., the date that the source is first relocated to Colorado becomes equivalent to the manufacture date for purposes of determining the applicability of NSPS JJJJ requirements).

However, as of October 1, 2011 the Division has not yet adopted NSPS JJJJ. Until such time as it does, any engine subject to NSPS will be subject only under Federal law. Once the Division adopts NSPS JJJJ, there will be an additional step added to the determination of the NSPS. Under the provisions of Regulation No. 6, Part B, § I.B (which is referenced in Part A), any engine relocated from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of NSPS JJJJ.

2.3.4 Reciprocating internal combustion engine (RICE) MACT: 40 CFR Part 63, Subpart ZZZZ

A permanent replacement engine located at either an area or major source is subject to the requirements in 40 CFR Part 63, Subpart ZZZZ. An analysis of the applicable monitoring, recordkeeping, and reporting requirements for the permanent engine replacement shall be included in the Applicability Reports required under Condition 2.1.2. Any testing required by the MACT is in addition to that required by this AOS. Note that the initial test required by the MACT can serve as the testing required by this AOS under Condition 2.2, if approved in advance by the Division, provided that such test is conducted within the time frame specified in Condition 2.2.

2.4 **Additional Sources**

The replacement of an existing engine with a new engine is viewed by the Division as the installation of a new emissions unit, not "routine replacement" of an existing unit. The AOS is therefore essentially an advanced construction permit review. The AOS cannot be used for additional new emission points for any site; an engine that is being installed as an entirely new emission point and not as part of an AOS-approved replacement of an existing onsite engine has to go through the appropriate Construction/Operating permitting process prior to installation.

3. Prevention of Significant Deterioration (PSD)

3.1 Based on the information provided by the applicant, this source is categorized as a minor stationary source as for PSD of the issuance date of this permit. Any future modification at this facility which is major by itself (i.e. Potential to Emit of $\geq$ 250 tons/year) for any pollutant listed

in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

3.2 The following Operating Permits are associated with this facility for purposes of determining applicability of Prevention of Significant Deterioration regulations: None.

4. Accidental Release Prevention Program (112(r))

4.1 Based on the information provided by the applicant, the facility is subject to the provisions of the Accidental Release Prevention Program (section 112(r) of the Federal Clean Air Act).

5. Compliance Assurance Monitoring (CAM)

5.1 The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold. They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64, as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV:

The glycol dehydrator is not subject to CAM since at the time the CAM plan was required the Title V permit specified a continuous compliance determination method (40 CFR Part 64 § 64.2(b)(1)(vi), as adopted by reference in Colorado Regulation No. 3, Part C, Section XIV).

6. Summary of Emission Units

6.1 The emissions units regulated by this permit are the following:

Emission Unit No./ Facility ID	AIRS Pt Number	Description	Startup Date	Pollution Control Device
CG-7100/ SCG-7100	001	Superior 4-Cycle Low NO_X Internal Combustion Engine, Model 12SGTB, S/N 32543, 15.0 MMBtu/hr, 2000 hp, Natural Gas Fired.	1994	None
CG-7200/ SCG-7200	002	Superior 4-Cycle Low NO_X Internal Combustion Engine, Model 12SGTB, S/N 32544, 15.0 MMBtu/hr, 2000 hp, Natural Gas Fired.	1994	None
CG-7300/ SCG-7300	003	Superior 4-Cycle Low NO_X Internal Combustion Engine, Model 12SGTB, S/N 32545, 15.0 MMBtu/hr, 2000 hp, Natural Gas Fired.	1994	None
Dehy/ S-Dehy	004	Propak Systems Triethylene Glycol Dehydrator, S/N E8360, Rated at 200 MMscf/day.	1994	Air-Assisted Flare and/or Regenerator Burner
Flare/ S-Flare	004	NMEC-AA-NAO Smokeless Air-Assisted Flare, 192 MMBtu/hr.	1994	NA
HMO, V-5207 & B001	N/A	One (1) Heatec, Model No. HCI-4010-40-PF-G, hot oil heater, rated at 4 MMBtu/hr, natural gas-fired. S/N 94149 One (1) heater-treater burner, rated at 0.283 MMBtu/hr, natural gas-fired One (1) Parker T-3600 boiler, rated at 0.2274 MMBtu/hr, natural gas-fired	1994	None

SECTION II - Specific Permit Terms

1. SCG-7100, SCG-7200, SCG-7300: Superior 4-Cycle Low NO_X ICEs

Note that unless otherwise specified the below limitations apply to EACH engine

Parameter	Permit Condition Number	Limitation **Per Engine**	Compliance Emission Factor	Monitoring Method	Monitoring Interval
NO_X	1.1	29.0 tpy	0.44 lb/MMBtu	Recordkeeping and Calculation Portable Flue Gas Analyzer	Monthly Quarterly
CO		36.7 tpy	0.56 lb/MMBtu		
VOC		19.4 tpy	0.29 lb/MMBtu		
Natural Gas Consumption	1.2	147.04 MMscf/yr		Fuel Meter	Monthly
Heat Content	1.3			ASTM Methods or In-Line Gas Chromatograph	Semi-Annual
Opacity	1.4	Not to exceed 20%		Fuel Restriction	Only Natural Gas is Used as Fuel

1.1 Emissions of Nitrogen Oxides, Carbon Monoxide and Volatile Organic Compounds **from each engine** shall not exceed the limitations stated above (Colorado Construction Permits 94MR130-1, 2 and 3). Compliance with the emission limitations shall be monitored as follows:

1.1.1 Except as provided below, the emission factors listed above (from the manufacturer, converted to lb/MMBtu based on an engine heat rate of 7,500 Btu/hp-hr) have been approved by the Division and shall be used to calculate emissions from these engines as follows:

Monthly emissions shall be calculated **for each engine** by the end of the subsequent month using the above emission factors, the monthly natural gas consumption and the lower heating value of the fuel, as specified in Condition 1.3, in the equation below:

$$\text{tons/month} = \frac{[\text{EF (lbs/MMBtu)}] \times [\text{Fuel Use (MMscf/month)}] \times [\text{Heat Content of Fuel (MMBtu/MMscf)}]}{2000 \text{ lbs/ton}}$$

A twelve-month rolling total of emissions **from each engine** shall be maintained to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

If the results of the portable analyzer testing conducted under the provisions of Condition 1.1.2 show that either the NO_X or CO emission rates/factors are greater than the emission rates/factors listed above, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a

modification to this permit to reflect, at a minimum, the higher emission rates/factors within 60 days of the completion of the test.

1.1.2 **Portable Monitoring (10/12/12 version).** Emission measurements of nitrogen oxides (NO_X) and carbon monoxide (CO) from each engine shall be conducted quarterly using a portable flue gas analyzer. At least one calendar month shall separate the quarterly tests**.** Note that if an engine is operated for less than 100 hrs in any quarterly period, then the portable monitoring requirements do not apply to that engine.

All portable analyzer testing required by this permit shall be conducted using the Division's Portable Analyzer Monitoring Protocol (ver March 2006 or newer) as found on the Division's website at: http://www.colorado.gov/cs/Satellite/CDPHE-AP/CBON/1251596520270

Results of the portable analyzer tests shall be used to monitor the compliance status of these units. For comparison with the hourly emission limitations, the results of the tests shall be converted to lb/MMBtu in order to monitor compliance with the hourly emission limitations. For comparison with an annual or short term (monthly) emission limit, the results of the tests shall be converted to a lb/hr basis and multiplied by the allowable operating hours in the month or year (whichever applies) in order to monitor compliance. If a source is not limited in its hours of operation the test results will be multiplied by the maximum number of hours in the month or year (8760), whichever applies.

If the portable analyzer results indicate compliance with both the NO_X and CO emission limitations, in the absence of credible evidence to the contrary, the source may certify that the engine is in compliance with both the NO_X and CO emission limitations for the relevant time period.

Subject to the provisions of C.R.S. 25-7-123.1 and in the absence of credible evidence to the contrary, if the portable analyzer results fail to demonstrate compliance with either the NO_X or CO emission limitations, the engine will be considered to be out of compliance from the date of the portable analyzer test until a portable analyzer test indicates compliance with both the NO_X and CO emission limitations or until the engine is taken offline.

For comparison with the emission rates/factors, the emission rates/factors determined by the portable analyzer tests and approved by the Division shall be converted to the same units as the emission rates/factors in the permit. If the portable analyzer tests shows that either the NO_X or CO emission rates/factors are greater than the relevant ones set forth in the permit, and in the absence of subsequent testing results to the contrary (as approved by the Division), the permittee shall apply for a modification to this permit to reflect, at a minimum, the higher emission rate/factor within 60 days of the completion of the test.

Results of all tests conducted shall be kept on site and made available to the Division upon request**.**

1.2 Natural Gas consumption **for each engine** shall not exceed the limitation stated above (Colorado Construction Permits 94MR130-1, 2 and 3). Natural gas use **for each engine** shall be recorded monthly using the engine's fuel meter. A twelve month rolling total shall be maintained **for each engine** to monitor compliance with the annual limitation. Each month, a new twelve month total shall be calculated using the previous twelve months data.

1.3 The Btu content of the natural gas used to fuel these engines shall be verified semi-annually using the appropriate ASTM Methods or equivalent, if approved in advance by the Division. In lieu of collecting a sample, the Btu content of the natural gas may be determined using the in-line gas chromatograph to determine the gas composition and the appropriate ASTM Methods or equivalent, if approved in advance by the Division, to calculate the Btu content. The Btu content of the gas shall be calculated for January and July, using the average composition of the gas as determined by the in-line gas chromatograph for those months. The Btu content of the natural gas shall be based on the lower heating value of the fuel.

If sampling is conducted, calculations of monthly emissions shall be made using the heat content derived from the most recent required analysis. If the gas chromatograph data is used, calculations of monthly emissions for January through June shall be made using the January average Btu content and calculations of monthly emissions for July through December shall be made using the July average Btu content.

1.4 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section A.II.1). The opacity standard applies **to each engine**. In the absence of credible evidence to the contrary, compliance with the 20% opacity limit shall be presumed since only natural gas is permitted to be used as fuel for these engines.

2. Dehy and Flare - Propak Systems Triethylene Glycol Dehydrator and Facility Flare

Parameter	Permit Condition Number	Limitation	Compliance Emission Factor	Monitoring Method	Monitoring Interval
NO_X	2.1	7.1 tpy	71.4 lb/MMscf	Recordkeeping and Calculation	Monthly
CO		38.3 tpy	388.5 lb/MMscf		
VOC	2.2	38.8 tpy	See Condition 2.2	Parametric	Daily
Extended Gas Analysis				ASTM Methods	Annually
Natural Gas Processed by the Glycol Dehydrator	2.3	37,788 MMscf/yr		Flow Meter	Monthly
Gas Consumed by the Flare	2.4	196.8 MMscf/yr		Flow Meter	Monthly
Hours of Operation for the Glycol Dehydrator	2.5	**Scenario 1:** 6,260 hrs/yr **Scenario 2:** 2,500 hrs/yr		Recordkeeping	Monthly
Dehydrator Regenerator (Still) Vent and Flash Tank Requirements	2.6.	Emissions Routed to Flare or Regenerator Burner		Certification	Annually
Flare Requirements	2.7	Visible Emissions/Opacity Requirements		Visible Emissions Observations	Monthly
		A Flame Shall be Present at all times that the Flare is Operated		Temperature Sensor or Flame Detection Device with Alarm	Continuously
		Flare Specifications – Btu Content of Gas and Velocity		See Condition 2.7.3.	
		Flare Shall be Operating at all Times that the Dehydrator is Operated		Certification	Annually
Natural Gas Transmission and Storage Facilities MACT requirements	2.8.	Site Specific BTEX Limit		See Condition 2.8.	

2.1 NO_X and CO emissions from the flare shall not exceed the limitation stated above (Colorado Construction Permit 94MR130-4 as modified under the provisions of Section I, Condition 1.3). Monthly emissions of NO_X and CO shall be calculated by the end of the subsequent month using the above emission factors (from AP-42 Section 13.5 (dated 9/91), Table 13.5-1, converted to

lb/MMscf based on a gas heat content of 1050 Btu/scf) and the monthly quantity of fuel combusted in the flare (as required by Condition 2.4) in the following equation:

$$\text{Tons/mo} = \frac{[\text{EF (lb/MMscf)} \times \text{Gas Combusted (MMScf/mo)}]}{2000 \text{ lbs/ton}}$$

A twelve month rolling total of emissions will be maintained to monitor compliance with the annual emission limitations. Each month, a new twelve month total shall be calculated using the previous twelve months data.

2.2 VOC emissions from the flare (dehydrator vented to the flare) shall not exceed the limitation stated above (Colorado Construction Permit 94MR130-4 as modified under the provisions of Section I, Condition 1.3). Compliance with the VOC emission limitations shall be monitored as follows:

2.2.1 The inlet gas flow rate, inlet gas temperature, inlet gas pressure, glycol recirculation rate, and stripping gas rate shall be measured and recorded daily. The average value for each of these parameters shall be determined for any month during which a daily recorded parameter fails the stipulated passing criteria compared to the values listed in the table below. The circumstances surrounding any day on which the required information fails to be recorded shall be described in a log to be maintained on site. Data from the last day for which data exists will be substituted for the missing values for purposes of calculating the monthly average. No data substitution is necessary for days on which the unit did not operate.

Parameter	Scenario 1	Scenario 2	Units	Criteria
Inlet Gas Flow Rate	65	200	MMscfd	At or Below
Inlet Gas Temperature	70	70	º F	At or Above
Inlet Gas Pressure	700	700	psig	At or Above
Glycol Recirculation Rate	13	25	gpm	At or Below
Stripping Gas Rate	50	80	scfm	At or Below
Benzene	100	100	ppm	At or Below
Toluene	100	100	ppm	At or Below
Ethyl Benzene	35	35	ppm	At or Below
Xylene	35	35	ppm	At or Below

Scenario 1 is low volume mode and scenario 2 is high volume mode. Operating characteristics for the 2 modes are specified in the table above.

2.2.2 An extended natural gas analysis of the processed wet gas will be conducted once per calendar year, using ASTM methods or equivalent. If any of the analyses indicate the BTEX constituents exceed the listed values, frequency of extended gas analyses will increase to twice per recovery period (analyses not less than one month apart). Frequency will remain twice per recovery period until analyses indicates the BTEX constituents meet the comparison criteria for two consecutive tests, at which time required frequency will return to annual.

2.2.3 If any monthly average of a parameter recorded daily (as required by Condition 2.2.1) or a concentration for a BTEX constituent does not meet the comparison criteria, the GRI GLYCalc (version 4.0 or higher) model shall be used to determine the monthly VOC emission rate, unless the unit has been operated for 240 hours or less. Inputs into the model shall be the monthly average value for the parameters, the BTEX concentrations from the latest extended gas analysis, and the following assumed values:

Theoretical Stages:	1.76
Flash Tank Temperature:	70 degrees Fahrenheit
Flash Tank Pressure:	35 psig
Flare Control Efficiency:	95%

GLYCalc model runs shall be conducted for the month(s) in which the monthly average value of a GLYCalc parameter recorded daily was exceeded and for every month in which any BTEX constituent exceeds the values listed in Condition 2.2.1, beginning with the month in which the gas sample was taken which indicates the exceedance and ending in the month in which a gas sample is taken that indicates no exceedance. GLYCalc model runs shall be completed by the end of the subsequent month. GLYCalc runs are not required for months in which the unit operates 240 hours or less.

2.2.4 A rolling twelve month total of VOC emissions shall be maintained for the flare to monitor compliance with the annual VOC limit. Monthly emissions shall be calculated as follows:

2.2.4.1 Emissions from the dehydrator (emissions are vented through the flare) shall be estimated as follows:

a. If a GLYCalc run is required for any reason for a given month, the pounds per hour of emissions predicted by the model run shall be multiplied by the number of hours the unit ran for that month to determine monthly emissions

b. For months that do not trigger a GLYCalc run, monthly VOC emissions from the dehydrator shall be determined using the appropriate emission factor (see table below) and the dehydrator hours of operation (as required by Condition 2.5) in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lbs/hr)} \times \text{hrs of operation}}{\text{2000 lbs/ton}}$$

	VOC Emission Factor (lbs/hr)	Emission Factor Source
Scenario 1	6.6	From the July 6, 1997 GLYCalc run submitted with the original Title V permit application on September 26, 1997
Scenario 2	13.0	

Note emission factors include flare control efficiency of 95%

c. For months in which there are uncontrolled emissions from the dehydrator due to flare downtime, monthly emissions shall be the number of hours the unit operated with the flare multiplied by the emission factors indicated in Condition 2.2.4.2.a or the VOC emission rate (lbs/hr) predicted by the GLYCalc run plus estimated uncontrolled emissions for the month as required by Condition 2.7.2.

2.2.4.2 VOC emissions from the combustion of pilot gas shall be determined monthly using an emission factor of 35.7 lb/MMscf (from AP-42 Section 13.5 (date 9/91), Table 13.5-1, revised to reflect that 90% of gas combusted is methane) in the following equation:

$$\text{Tons/mo} = \frac{\text{EF (lb/MMscf) x pilot gas consumed,(MMscf/mo)}}{\text{2000 lbs/mo}}$$

Monthly VOC emissions from the glycol dehydrator (as determined by Condition 2.2.4.1) and the combustion of pilot gas (as determined by Condition 2.2.4.2) shall be summed together and used in a twelve month rolling total to monitor compliance with the annual VOC emission limitation for the flare. Each month, a new twelve month total shall be calculated using the previous twelve months data.

If the twelve month rolling total of VOC emissions exceeds the annual VOC emission limitation, dehydrator VOC emissions for the previous months must be calculated with GLYCalc using the parameters described in Condition 2.2.3.1 until the rolling twelve month total is less than the annual VOC limitation.

2.3 The quantity of gas processed by the dehydration unit shall not exceed the limitation listed above (Colorado Construction Permit 94MR130-4 as modified under the provisions of Section I, Condition 1.3). The gas processed through the dehydration unit shall be monitored using a flow meter and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total of gas processed by the dehydrator will be maintained to monitor compliance with annual limitations. Each month, a new twelve month total shall be calculated using the previous twelve months data.

2.4 The quantity of gas consumed by the flare (dehydrator flash tank and still vent gases and pilot gas) shall not exceed the limitations listed above (Colorado Construction Permit 94MR130-4 as modified under the provisions of Section I, Condition 1.3). Compliance with the consumption limit shall be monitored as follows:

2.4.1 The quantity of pilot gas consumed by the flare shall be monitored and recorded monthly using flow meters and other records as necessary. Such records shall be made available to the Division upon request.

2.4.2 The quantity of dehydrator flash tank and still vent gases consumed by the flare shall be determined using the flare flowmeter.

Monthly quantities of gas consumed by the flare from the pilot and the glycol dehydrator flash tank and still vent shall be summed together and used in a rolling twelve month total to monitor compliance with the annual limitation. Each month a new twelve month total shall be calculated using the previous twelve months' data.

2.5 Hours of operation for the dehydration unit under each operating scenario shall not exceed the limitations listed above. Hours of operation for each operating scenario shall be monitored and recorded monthly in a log that is available to the Division upon request. A twelve month rolling total of operating hours for each scenario will be maintained to monitor compliance with annual limitations. Each month a new twelve month total shall be calculated using the previous twelve months' data.

2.6 Emissions from the dehydrator regenerator (still) vent and flash tank vent shall be routed through a closed vent system to either the flare prior to being emitted or to the regenerator burner for use as fuel.

2.7 The flare is subject to the following requirements:

2.7.1 The flare is subject to the following visible emission requirements:

2.7.1.1 Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7).

Compliance with the visible emission requirements shall be monitored by conducting a visible emission observation monthly when the flare is operating. Monthly observations shall last a minimum of five minutes. If no visible emissions are present during this observation, in the absence of credible evidence to the contrary, the flare will be considered in compliance with the above visible emissions requirement. If visible emissions are present during the monthly reading, a two (2) hour observation shall be conducted in accordance with Method 22 to determine if the flare is in compliance with the above visible emissions requirement. If visible emissions are present for five minutes or less (total) during the two-hour observation, then the flare shall be deemed in compliance. If visible emissions are present for more than five minutes (total) during the two-hour observation, then the flare shall be deemed out

of compliance with the above visible emissions requirement. Subject to the provisions of C.R.S. § 25-7-123.1 and in the absence of credible evidence to the contrary, exceedance of the visible emission requirement shall be considered to exist from the time a Method 22 reading is taken that shows the flare is out of compliance (as defined above) until a Method 22 reading is taken that shows the flare is in compliance (as defined above).

2.7.1.2 No owner or operator of a smokeless flare or other flare for the combustion of waste gases shall allow or cause emissions into the atmosphere of any air pollutant which is in excess of 30% opacity for a period or periods aggregating more than six minutes in any sixty consecutive minutes (Colorado Regulation No. 1, Section II.A.5). In the absence of credible evidence to the contrary, compliance with this opacity requirement shall be presumed provided the requirements in Condition 2.7.1.1 are met.

2.7.2 Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7). The device shall be equipped with an alarm to indicate no ignition of the pilot flame. Records of the times and duration of all periods of pilot flame outages, and estimated emissions shall be maintained and made available to the Division upon request. Estimated emissions from the glycol dehydrator shall assume 0% control and shall be used as specified in Condition 2.2.4.1.c to monitor compliance with the VOC emission limitation in Condition 2.2.

2.7.3 The flare is subject to the following specifications:

2.7.3.1 Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7).

2.7.3.2 Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as specified in 40 CFR Part 63 Subpart A § 63.11(b)(8) (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7).

The permittee shall maintain records from the January 2007 performance test indicating compliance with these requirements. The results of the monitoring

required under Condition 2.7.1.1 shall be used to assess compliance with the requirements in Condition 2.7.3.

2.7.4 The flare shall be operated at all times when emissions may be vented to them (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7).

2.7.5 Owners or operators of flares used to comply with the emission limitations in this permit (Condition 2.2) shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs (as provided for under the provisions of Section I, Condition 1.3 and Colorado Regulation No. 3 Part B, Section III.E and Part C, Sections I.A.7 and III.B.7).

2.8 The glycol dehydration unit is subject to the provisions in 40 CFR Part 63 Subpart HHH, "National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities", as adopted by reference in Colorado Regulation No. 8, Part E, Section III, specifically the following requirements apply to this emission unit:

The requirements below reflect the language in 40 CFR Part 63 Subpart HHH as of the date of renewal permit issuance [July 1, 2013]. However, the permittee is subject to the latest version of Subpart HHH.

Applicability and designation of affected source (§ 63.1270)

2.8.1 **Compliance Date:** Each affected small glycol dehydration unit, as defined in §63.1271, located at a major source, that commenced construction before August 23, 2011, must achieve compliance no later than October 15, 2015, except as provided in §63.6(i) (§ 63.1270(d)(3)).

Affirmative defense for violations of emission standards during malfunctions (§ 63.1272)

2.8.2 The provisions set forth in this subpart shall apply at all times. (§ 63.1272(a))

2.8.3 In response to an action to enforce the standards set forth in this subpart, you may assert an affirmative defense to a claim for civil penalties for violations of such standards that are caused by malfunction, as defined at §63.2. Appropriate penalties may be assessed; however, if you fail to meet your burden of proving all of the requirements in the affirmative defense, the affirmative defense shall not be available for claims for injunctive relief. (§ 63.1272(d)) In order to establish an affirmative defense, the permittee shall meet the reporting requirements in § 1272(d)(2) and must prove by a preponderance of evidence the factors in § 63.1272(d)(1)(i) through (ix).

General Standards (§ 63.1274)

2.8.4 Table 2 of this subpart specifies the provisions of subpart A (General Provisions) that apply and those that do not apply to owners and operators of affected sources subject

to this subpart. (§ 63.1274(a)). The general provisions that apply to this unit, include but are not limited to the following:

2.8.4.1 Prohibited activities and circumvention in §63.4.

2.8.4.2 Monitoring requirements in § 63.8.

2.8.4.3 Notification requirements in § 63.9.

2.8.4.4 Recordkeeping requirements in § 63.10.

2.8.5 All reports required under this subpart shall be sent to the Administrator at the appropriate address listed in §63.13. Reports may be submitted on electronic media. (§ 63.1274(b))

2.8.6 The owner or operator of an affected source (*i.e.*, glycol dehydration unit) located at an existing or new major source of HAP emissions shall comply with the requirements in this subpart as follows (§ 63.1274(c)):

2.8.6.1 The control requirements for glycol dehydration unit process vents specified in §63.1275 (§ 63.1274(c));

2.8.6.2 The monitoring requirements specified in §63.1283, and

2.8.6.3 The recordkeeping and reporting requirements specified in §§63.1284 and 63.1285. (§ 63.1274(c)(1) thru (3))

2.8.7 In all cases where the provisions of this subpart require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of this standard to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of this standard. However, if the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of this subpart. (§ 63.1274(g))

2.8.8 At all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (§ 63.1274(h))

Glycol dehydration unit process vent standards (§ 63.1275)

2.8.9 This section applies to each glycol dehydration unit subject to this subpart that must be controlled for air emissions as specified in paragraph (c)(1) of §63.1274 (Condition 2.8.6.1). (§ 63.1275(a))

2.8.10 Except as provided in paragraph (c) of this section, an owner or operator of a glycol dehydration unit process vent shall comply with the requirements specified in paragraphs (b)(1) and (b)(2) of this section. (§ 63.1275(b))

2.8.10.1 You must limit BTEX emissions from each existing small glycol dehydration unit, as defined in §63.1271, to the limit determined in Equation 1 of this section. You must limit BTEX emissions from each new small glycol dehydration unit process vent, as defined in §63.1271, to the limit determined in Equation 2 of this section. The limits determined using Equation 1 or Equation 2, of this section, must be met in accordance with one of the alternatives specified in paragraphs (b)(1)(iii)(A) through (D) of this section. (§ 63.1275(b)(1)(iii)

Since this unit is an existing glycol dehydrator the sources shall comply with Equation 1 in § 63.1275(b)(1)(iii) as set forth below and compliance with the emission limitations shall be met in accordance with the requirements in § 63.1275(b)(1)(iii)(A) as set forth in Condition 2.8.10.2.

$EL_{BTEX} = 3.10 \times 10^{-4} \times \text{Throughput} \times C_{i,BTEX} \times 365 \text{ day/yr} \times 1 \text{ Mg}/(1 \times 10^{6} \text{ grams})$

Where: EL_{BTEX} = Unit-specific BTEX emission limit, megagrams per year

3.10×10^{-4} = BTEX emission limit, grams BTEX/standard cubic meter-ppmv

Throughput – Annual average daily natural gas throughput, standard cubic meters per day

$C_{i,BTEX}$ = Annual average BTEX concentration of the natural gas at the inlet to the glycol dehydration unit, ppmv

2.8.10.2 Connect the process vent to a control device or combination of control devices through a closed-vent system. The closed vent system shall be designed and operated in accordance with the requirements of §63.1281(c). The control device(s) shall be designed and operated in accordance with the requirements of §63.1281(f). (§ 63.1275(b)(1)(iii)(A))

2.8.10.3 One or more safety devices that vent directly to the atmosphere may be used on the air emission control equipment installed to comply with paragraph (b)(1) of this section. (§ 63.1275(b)(2))

Control Equipment Requirements (§ 63.1281)

2.8.11 This section applies to each closed-vent system and control device installed and operated by the owner or operator to control air emissions as required by the provisions of this subpart. Compliance with paragraphs (c) and (d) of this section will be determined by review of the records required by §63.1284, the reports required by §63.1285, by review of performance test results, and by inspections. (§ 63.1281(a))

<u>Closed Vent System Requirements</u>

2.8.12 The closed-vent system shall route all gases, vapors, and fumes emitted from the material in an emissions unit to a control device that meets the requirements specified

in paragraph (d) of this section. (§63.1281(c)(1)) Note that § 63.1281(d) specifies that the control device requirements for small glycol dehydrators shall meet the control requirements in § 63.1281(e).

2.8.13 The closed-vent system shall be designed and operated with no detectable emissions. (§ 63.1281(c)(2))

2.8.14 If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, the owner or operator shall meet the requirements specified in paragraphs (c)(3)(i) and (c)(3)(ii) of this section. (§ 63.1281(c)(3))

Control Device Requirements for Small Glycol Dehydration Units

2.8.15 The control device used to meet BTEX the emission limit calculated in §63.1275(b)(1)(iii) shall be one of the control devices specified in paragraphs (f)(1)(i) through (iii) of this section. (§ 63.1281(f)(1)) The dehydrator is currently equipped with a flare so the requirements applicable to flares have been included.

2.8.15.1 A flare, as defined in §63.1271, that is designed and operated in accordance with the requirements of §63.11(b). (§ 63.1281(f)(1)(iii))

2.8.16 The owner or operator shall operate each control device in accordance with the requirements specified in paragraphs (f)(2)(i) and (ii) of this section. (§ 63.1281(f)(2))

2.8.16.1 Each control device used to comply with this subpart shall be operating at all times. An owner or operator may vent more than one unit to a control device used to comply with this subpart. (§ 63.1281(f)(2)(i))

2.8.16.2 For each control device monitored in accordance with the requirements of §63.1283(d), the owner or operator shall demonstrate compliance according to the requirements of either §63.1282(e) or (h). (§ 63.1281(f)(2)(ii**))**

Test methods, compliance procedures, and compliance demonstrations (§ 63.1282)

2.8.17 *Determination of glycol dehydration unit flowrate, benzene emissions, or BTEX emissions.* The procedures of this paragraph shall be used by an owner or operator to determine glycol dehydration unit natural gas flowrate, benzene emissions, or BTEX emissions. (§ 63.1282(a))

2.8.17.1 The determination of actual flowrate of natural gas to a glycol dehydration unit shall be made using the procedures of either paragraph (a)(1)(i) or (a)(1)(ii) of this section. (§ 63.1282(a)(1))

2.8.17.2 The determination of actual average benzene or BTEX emissions from a glycol dehydration unit shall be made using the procedures of either paragraph (a)(2)(i) or (ii) of this section. Emissions shall be determined

either uncontrolled or with federally enforceable controls in place. (§ 63.1282(a)(2))

2.8.18 *No detectable emissions test procedure.* The procedures shall be conducted in accordance with Method 21 of 40 CRF Part 60, Appendix A, in accordance with the procedures in § 63.1282(b)(1) through (7).

A potential leak interface is determined to operate with no detectable organic emissions if the organic concentration value determined in § 63.1282(b)(7) is less than 500 parts per million by volume. (§ 63.1282(b)(8))

2.8.19 Except as specified in paragraph (d)(2) of this section, a flare, as defined in § 63.1271, that is designed and operating in accordance with the requirements in § 63.11(b) is exempt from the requirements to conduct performance tests and design analyses under this section. (§ 63.1282(d) and (d)(1))

2.8.20 An owner or operator shall design and operate each flare, as defined in §63.1271, in accordance with the requirements specified in §63.11(b) and the compliance determination shall be conducted using Method 22 of 40 CFR part 60, appendix A, to determine visible emissions. (§ 63.1282(d)(2))

Inspection and monitoring requirements (§ 63.1283)

2.8.21 *Closed-vent system inspection and monitoring requirements.* For each closed-vent system required to comply with this section, the owner or operator shall comply with the requirements of § 63.1283(c)(2) through (7). (§ 63.128(c)(1))

2.8.22 *Control device monitoring requirements.* (1) For each control device except as provided for in paragraph (d)(2) of this section, the owner or operator shall install and operate a continuous parameter monitoring system in accordance with the requirements of paragraphs (d)(3) through (7) of this section. Owners or operators that install and operate a flare in accordance with §63.1281(d)(1)(iii) or (f)(1)(iii) are exempt from the requirements of paragraphs (d)(4) and (5) of this section. The continuous monitoring system shall be designed and operated so that a determination can be made on whether the control device is achieving the applicable performance requirements of §63.1281(d), (e)(3), or (f)(1). Each continuous parameter monitoring system shall meet the following specifications and requirements: (§ 63.1283(d)(1)):

2.8.22.1 A site-specific monitoring plan must be prepared that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraph (d) of this section and in §63.8(d). Each CPMS must be installed, calibrated, operated, and maintained in accordance with the procedures in your approved site-specific monitoring plan. Using the process described in §63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs

(d)(1)(ii)(A) through (E) of this section in your site-specific monitoring plan. (§ 63.1283(d)(1)(ii))

2.8.22.2 The owner or operator must conduct the CPMS equipment performance checks, system accuracy audits, or other audit procedures specified in the site-specific monitoring plan at least once every 12 months. (§ 63.1283(d)(1)(iii))

2.8.22.3 The owner or operator must conduct a performance evaluation of each CPMS in accordance with the site-specific monitoring plan. (§ 63.1283(d)(1)(iv))

2.8.23 The owner or operator shall install, calibrate, operate, and maintain a device equipped with a continuous recorder to measure the values of operating parameters appropriate for the control device as specified in either paragraph (d)(3)(i), (d)(3)(ii), or (d)(3)(iii) of this section. (§ 63.1283(d)(3))

2.8.23.1 For a flare, a heat sensing monitoring device equipped with a continuous recorder that indicates the continuous ignition of the pilot flame. (§ 63.1283(d)(3)(i)(C))

2.8.24 An excursion for a given control device is determined to have occurred when the monitoring data or lack of monitoring data result in any one of the criteria specified in paragraphs (d)(6)(i) through (d)(6)(v) of this section being met. (§ 63.1283(d)(6)) The excursion criterion in § 62.1283(d)(6)(i), (ii) and (v) do not apply to this emission unit, the excursion criterion that apply are as follows:

2.8.24.1 An excursion occurs when the monitoring data are not available for at least 75 percent of the operating hours in a day. (§ 63.1283(d)(1)(iii))

2.8.24.2 If the closed-vent system contains one or more bypass devices that could be used to divert all or a portion of the gases, vapors, or fumes from entering the control device, an excursion occurs when (§ 63.1283(d)(1)(iv)):

a. For each bypass line subject to §63.1281(c)(3)(i)(A) the flow indicator indicates that flow has been detected and that the stream has been diverted away from the control device to the atmosphere. (§ 63.1283(d)(1)(iv)(A))

b. For each bypass line subject to §63.1281(c)(3)(i)(B), if the seal or closure mechanism has been broken, the bypass line valve position has changed, the key for the lock-and-key type lock has been checked out, or the car-seal has broken. (§ 63.1283(d)(1)(iv)(B))

2.8.25 For each excursion, the owner or operator shall be deemed to have failed to have applied control in a manner that achieves the required operating parameter limits. Failure to achieve the required operating parameter limits is a violation of this standard. (§ 63.1283(d)(7))

Recordkeeping and reporting requirements (§§ 63.1284 and 63.1285)

2.8.26 Records shall be kept as specified in § 63.1284(a), (b), (d) and (e)

2.8.27 Reports shall be submitted as required by § 63.1285.

Note that initial notifications for small glycol dehydrators are due by October 15, 2013 as specified in § 63.1285(b)(1)(ii).

3. HMO, V-5207 and B001 – Hot Oil Heater Rated at 4 MMBtu/hr, Heater Treater Rated at 0.287 MMBtu/hr and Parker Boiler Rated at 0.2274 MMBtu/hr

Parameter	Permit Condition Number	Limitations		Compliance Emission Factor	Monitoring	
		Short Term	Long Term		Method	Interval
Particulate Matter (PM)	3.1.	HMO – 0.35 lb/MMBtu V-5207 & B001 0.50 lb/MMBtu			Fuel Restriction	Only Natural Gas is Used as Fuel
Opacity	3.2	Not to Exceed 20%				
MACT Requirements – 40 CFR Part 63 Subpart DDDDD	3.3	Tune-Ups Every Five Years One Time Facility Energy Assessment			See Condition 3.3.	

Note that these emission units are exempt from the APEN reporting requirements in Regulation No. 3, Part A and the construction permit requirements in Regulation No. 3, Part B.

3.1 Particulate Matter (PM) emissions from the boiler and process heaters shall not exceed the above limitation (Colorado Regulation No. 1, Section III.A.1.a and b). In the absence of credible evidence to the contrary, compliance with the particulate matter emission limits is presumed since only natural gas and is permitted to be used as fuel for the boiler and process heaters. The permittee shall maintain records that verify that only natural gas is used as fuel in the boiler and process heaters.

Note that the numeric PM standard for the HMO were determined using the design heat input rate for the unit (4.0 MMBtu/hr) in the following equation:

$PE = 0.5 \times (FI)^{-0.26,}$ where: PE = particulate standard in lbs/MMBtu
FI = fuel input in MMBtu/hr

3.2 No owner or operator of a source shall allow or cause to be emitted into the atmosphere any air pollutant which is in excess of 20% opacity (Colorado Regulation No. 1, Section II.A.1). In the absence of credible evidence to the contrary, compliance with the 20% opacity requirement will be presumed since only natural gas is permitted to be used as fuel for the boiler and heaters. The permittee shall maintain records that verify that only natural gas is used as fuel in the boiler and process heaters.

3.3 These emission units are subject to the National Emissions Standards for Hazardous Air Pollutants from Industrial, Commercial and Institutional Boilers and Process Heaters, 40 CFR Part 63 Subpart DDDDD. Specifically, these emission units are subject to the following requirements:

The requirements below reflect the language in 40 CFR Part 63 Subpart DDDDD as of the date of renewal permit issuance [July 1, 2013]. However, the permittee is subject to the latest version of Subpart DDDDD.

These requirements included in this Condition 3.3 are only federally enforceable. As of the date of renewal permit issuance [July 1, 2013], the requirements in 40 CFR Part 63 Subpart DDDDD have not been adopted into Colorado Regulation No. 8, Part E by the Division and are therefore not state-enforceable. In the event that the Division adopts these requirements they will become state-enforceable.

When do I have to comply with this subpart? (63.7495)

3.3.1 If you have an existing boiler or process heater, you must comply with this subpart no later than January 31, 2016, except as provided in § 63.6(i). (63.7495(b))

3.3.2 You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart. (63.7495(d))

What emission limitations, work practice standards, and operating limits must I meet? (63.7500)

3.3.3 You must meet the requirements in § 63.7500(a)(1) through (3), except as provided in § 63.7500(b) through (e). You must meet these requirements at all times the affected unit is operating except as provided for in § 63.7500(f). (63.7500(a)). Note that the requirements in § 63.7500(a)(2) do not apply to these units so they have not been included in the permit.

3.3.4 You must meet each emission limit and work practice standard in Tables 1 through 3, and 11 through 13 to this subpart that applies to your boiler or process heater, for each boiler or process heater at your source, except as provided under § 63.7522. (63.7500(a)(1)) These emission units are existing units and Tables 1 and 11 through 13 are not relevant. These existing emission units are not subject to any emission limits in Table 2. The work practice standards in Table 3 that apply to these units are as follows:

3.3.4.1 For a new or existing boiler or process heater with heat input capacity of less than or equal to 5 million Btu per hour in the gas 1 subcategory you must conduct a tune-up of the boiler or process heater every five years as specified in § 63.7540. (Table 3, item 1)

3.3.4.2 For an existing boiler or process heater located at a major source facility you must have a one-time energy assessment performed on the major source facility by qualified energy assessor. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in this table, satisfies the energy

assessment requirement. A facility that operates under an energy management program compatible with ISO 50001 that includes the affected units also satisfies the energy assessment requirement. The energy assessment must include the following with extent of the evaluation for items a.to e. appropriate for the on-site technical hours listed in § 63.7575. (Table 3, item 4) The energy assessment must include the following:

a. A visual inspection of the boiler or process heater system.

b. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.

c. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.

d. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.

e. A review of the facility's energy management practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified.

f. A list of cost-effective energy conservation measures that are within the facility's control.

g. A list of the energy savings potential of the energy conservation measures identified.

h. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

3.3.5 At all times, you must operate and maintain any affected source (as defined in § 63.7490), including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. (63.7500(a)(3))

3.3.6 As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section. (63.7500(b))

3.3.7 Boilers and process heaters in the units designed to burn gas 1 fuels subcategory with a heat input capacity of less than or equal to 5 million Btu per hour must complete a tune-up every 5 years as specified in § 63.7540. Boilers and process heaters in the

units designed to burn gas 1 fuels subcategory with a heat input capacity greater than 5 million Btu per hour and less than 10 million Btu per hour must complete a tune-up every 2 years as specified in § 63.7540. Boilers and process heaters in the units designed to burn gas 1 fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 to this subpart, or the operating limits in Table 4 to this subpart. (63.7500(e))

What are my initial compliance requirements and by what date must I conduct them (63.7510)

3.3.8 You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. You must complete the one-time energy assessment specified in Table 3 to this subpart no later than the compliance date specified in § 63.7495, except as specified in paragraph (j) of this section. (63.7510(e))

3.3.9 For existing affected sources (as defined in § 63.7490) that have not operated between the effective date of the rule and the compliance date that is specified for your source in § 63.7495, you must complete the initial compliance demonstration, if subject to the emission limits in Table 2 to this subpart, as specified in paragraphs (a) through (d) of this section, no later than 180 days after the re-start of the affected source and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart. You must complete an initial tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) no later than 30 days after the re-start of the affected source and, if applicable, complete the one-time energy assessment specified in Table 3 to this subpart, no later than the compliance date specified in § 63.7495. (63.7510(j))

When must I conduct subsequent performance tests, fuel analyses, or tune-ups? (63.7515)

3.3.10 If you are required to meet an applicable tune-up work practice standard, you must conduct an annual, biennial, or 5-year performance tune-up according to § 63.7540(a)(10), (11), or (12), respectively. Each annual tune-up specified in § 63.7540(a)(10) must be no more than 13 months after the previous tune-up. Each biennial tune-up specified in § 63.7540(a)(11) must be conducted no more than 25 months after the previous tune-up. Each 5-year tune-up specified in § 63.7540(a)(12) must be conducted no more than 61 months after the previous tune-up. For a new or reconstructed affected source (as defined in § 63.7490), the first annual, biennial, or 5-year tune-up must be no later than 13 months, 25 months, or 61 months, respectively, after the initial startup of the new or reconstructed affected source. (63.7515(d))

3.3.11 You must complete a subsequent tune-up by following the procedures described in § 63.7540(a)(10)(i) through (vi) and the schedule described in § 63.7540(a)(13) for units that are not operating at the time of their scheduled tune-up. (63.7515(g))

How do I demonstrate initial compliance with the emission limitations, fuel specifications and work practice standards? (63.7530)

3.3.12 If you own or operate an existing unit with a heat input capacity of less than 10 million Btu per hour or a unit in the unit designed to burn gas 1 subcategory, you must submit a signed statement in the Notification of Compliance Status report that indicates that you conducted a tune-up of the unit. (63.7530(d))

3.3.13 You must include with the Notification of Compliance Status a signed certification that the energy assessment was completed according to Table 3 to this subpart and is an accurate depiction of your facility at the time of the assessment. (63.7530(e))

3.3.14 You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e). (63.7530(f))

How do I demonstrate continuous compliance with the emission limitations, fuel specifications and work practice standards? (63.7540)

3.3.15 If your boiler or process heater has a continuous oxygen trim system that maintains an optimum air to fuel ratio, or a heat input capacity of less than or equal to 5 million Btu per hour and the unit is in the units designed to burn gas 1; units designed to burn gas 2 (other); or units designed to burn light liquid subcategories, or meets the definition of limited-use boiler or process heater in § 63.7575, you must conduct a tune-up of the boiler or process heater every 5 years as specified paragraphs (a)(10)(i) through (vi) of this section (Conditions 3.3.15.1 through 3.3.15.6) to demonstrate continuous compliance. You may delay the burner inspection specified in paragraph (a)(10)(i) of this section (Condition 3.3.15.1) until the next scheduled or unscheduled unit shutdown, but you must inspect each burner at least once every 72 months. (63.7540(a)(12))

3.3.15.1 As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment (63.7540(a)(10)(i));

3.3.15.2 Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available (63.7540(a)(10)(ii));

3.3.15.3 Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that

produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection (63.7540(a)(10)(iii));

3.3.15.4 Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject (63.7540(a)(10)(iv));

3.3.15.5 Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer (63.7540(a)(10)(v)); and

3.3.15.6 Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (a)(10)(vi)(A) through (C) of this section. (63.7540(a)(10)(vi))

3.3.16 If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. (63.7540(a)(13))

What notifications must I submit and when? (63.7545)

3.3.17 You must submit to the Administrator all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (6), and 63.9(b) through (h) that apply to you by the dates specified. (63.7545(a)) For the units addressed in this permit the requirement notifications are the initial notification (§ 63.9(b)) and the notification of compliance status.

3.3.18 As specified in § 63.9(b)(2), if you startup your affected source before January 31, 2013, you must submit an Initial Notification not later than 120 days after January 31, 2013. (63.7545(b))

3.3.19 If you are required to conduct an initial compliance demonstration as specified in § 63.7530, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For the initial compliance demonstration for each boiler or process heater, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of all performance test and/or other initial compliance demonstrations for all boiler or process heaters at the facility according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (8), as applicable. If you are not required to conduct an initial compliance demonstration as specified in § 63.7530(a), the Notification of Compliance Status must only contain the information specified in paragraphs (e)(1) and (8). (63.7545(e)) The Notification of Compliance Status for the

affected sources at this facility shall include the information specified in paragraphs (e)(1), (6), (7) and (8).

What reports must I submit and when? (63.7550)

3.3.20 You must submit each report in Table 9 to this subpart that applies to you. (63.7550(a))

3.3.21 For units that are subject only to a requirement to conduct an annual, biennial, or 5-year tune-up according to § 63.7540(a)(10), (11), or (12), respectively, and not subject to emission limits or operating limits, you may submit only an annual, biennial, or 5- year compliance report, as applicable, as specified in paragraphs (b)(1) through (4) of this section, instead of a semiannual compliance report. (63.7550(b))

3.3.22 If the facility is subject to the requirements of a tune up they must submit a compliance report with the information in paragraphs (c)(5)(i) through (iv) and (xiv) of this section. (63.7550(c)(1))

3.3.23 You must submit all reports required by Table 9 of this subpart electronically using CEDRI that is accessed through the EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report you must submit the report to the Administrator at the appropriate address listed in § 63.13. At the discretion of the Administrator, you must also submit these reports, to the Administrator in the format specified by the Administrator. (63.7550(h)(3))

What records must I keep? (63.7555)

3.3.24 You must keep the following records:

3.3.24.1 A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual [or annual, biennial or every five years, as applicable] compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv). (63.7555(a)(1))

3.3.24.2 Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in § 63.10(b)(2)(viii). (63.7555(a)(2))

In what form and how long must I keep my records? (63.7560)

3.3.25 Records shall be kept in the form and for the duration specified in § 63.7560.

What parts of the General Provisions apply to me? (63.7565)

3.3.26 Table 10 of 40 CFR Part 63 Subpart DDDDD shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. (63.7565) These requirements include but are not limited to the following:

3.3.26.1 Prohibited activities and circumvention in § 63.4.

3.3.26.2 Notification requirements in § 63.9.

SECTION III - Permit Shield

Regulation No. 3, 5 CCR 1001-5, Part C, §§ I.A.4, V.D., & XIII.B and § 25-7-114.4(3)(a), C.R.S.

1. Specific Non-Applicable Requirements

Based on the information available to the Division and supplied by the applicant, the following parameters and requirements have been specifically identified as non-applicable to the facility to which this permit has been issued. This shield does not protect the source from any violations that occurred prior to or at the time of permit issuance. In addition, this shield does not protect the source from any violations that occur as a result of any modification or reconstruction on which construction commenced prior to permit issuance.

Emission Unit Description & Number	Applicable Requirement	Justification
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart K, Ka, Kb - Storage Vessels for Petroleum Liquids	The storage vessels at this facility are less than 40,000 gallons and therefore are not affected facilities under NSPS K and Ka. Although the capacity of tanks T5312 and T5312 exceed the NSPS Kb applicability level (75 cubic meters), the true vapor pressure of the contents of these tanks do not exceed 15.0 kPa, therefore, NSPS Kb does not apply.
All	Regulation No. 6, Part A - Federal New Source Performance Standards, Subpart LLL - SO_2 Emissions from Onshore Natural Gas Processing Plants	Emission units are not affected sources.

2. General Conditions

Compliance with this Operating Permit shall be deemed compliance with all applicable requirements specifically identified in the permit and other requirements specifically identified in the permit as not applicable to the source. This permit shield shall not alter or affect the following:

2.1 The provisions of §§ 25-7-112 and 25-7-113, C.R.S., or § 303 of the federal act, concerning enforcement in cases of emergency;

2.2 The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

2.3 The applicable requirements of the federal Acid Rain Program, consistent with § 408(a) of the federal act;

2.4 The ability of the Air Pollution Control Division to obtain information from a source pursuant to § 25-7-111(2)(I), C.R.S., or the ability of the Administrator to obtain information pursuant to § 114 of the federal act;

2.5 The ability of the Air Pollution Control Division to reopen the Operating Permit for cause pursuant to Regulation No. 3, Part C, § XIII.

2.6 Sources are not shielded from terms and conditions that become applicable to the source subsequent to permit issuance.

3. Streamlined Conditions

The following applicable requirements have been subsumed within this operating permit using the pertinent streamlining procedures approved by the U.S. EPA. For purposes of the permit shield, compliance with the listed permit conditions will also serve as a compliance demonstration for purposes of the associated subsumed requirements.

No conditions have been streamlined.

SECTION IV - General Permit Conditions

5/22/12 version

1. Administrative Changes

Regulation No. 3, 5 CCR 1001-5, Part A, § III.

The permittee shall submit an application for an administrative permit amendment to the Division for those permit changes that are described in Regulation No. 3, Part A, § I.B.1. The permittee may immediately make the change upon submission of the application to the Division.

2. Certification Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.9., V.C.16.a.& e. and V.C.17.

a. Any application, report, document and compliance certification submitted to the Air Pollution Control Division pursuant to Regulation No. 3 or the Operating Permit shall contain a certification by a responsible official of the truth, accuracy and completeness of such form, report or certification stating that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

b. All compliance certifications for terms and conditions in the Operating Permit shall be submitted to the Air Pollution Control Division at least annually unless a more frequent period is specified in the applicable requirement or by the Division in the Operating Permit.

c. Compliance certifications shall contain:

(i) the identification of each permit term and condition that is the basis of the certification;

(ii) the compliance status of the source;

(iii) whether compliance was continuous or intermittent;

(iv) method(s) used for determining the compliance status of the source, currently and over the reporting period; and

(v) such other facts as the Air Pollution Control Division may require to determine the compliance status of the source.

d. All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

e. If the permittee is required to develop and register a risk management plan pursuant to § 112(r) of the federal act, the permittee shall certify its compliance with that requirement; the Operating Permit shall not incorporate the contents of the risk management plan as a permit term or condition.

3. Common Provisions

Common Provisions Regulation, 5 CCR 1001-2 §§ II.A., II.B., II.C., II,.E., II.F., II.I, and II.J

a. To Control Emissions Leaving Colorado

When emissions generated from sources in Colorado cross the State boundary line, such emissions shall not cause the air quality standards of the receiving State to be exceeded, provided reciprocal action is taken by the receiving State.

b. Emission Monitoring Requirements

The Division may require owners or operators of stationary air pollution sources to install, maintain, and use instrumentation to monitor and record emission data as a basis for periodic reports to the Division.

c. Performance Testing

The owner or operator of any air pollution source shall, upon request of the Division, conduct performance test(s) and furnish the Division a written report of the results of such test(s) in order to determine compliance with applicable emission control regulations.

Performance test(s) shall be conducted and the data reduced in accordance with the applicable reference test methods unless the Division:

(i) specifies or approves, in specific cases, the use of a test method with minor changes in methodology;

(ii) approves the use of an equivalent method;

(iii) approves the use of an alternative method the results of which the Division has determined to be adequate for indicating where a specific source is in compliance; or

(iv) waives the requirement for performance test(s) because the owner or operator of a source has demonstrated by other means to the Division's satisfaction that the affected facility is in compliance with the standard. Nothing in this paragraph shall be construed to abrogate the Commission's or Division's authority to require testing under the Colorado Revised Statutes, Title 25, Article 7, and pursuant to regulations promulgated by the Commission.

Compliance test(s) shall be conducted under such conditions as the Division shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Division such records as may be necessary to determine the conditions of the performance test(s). Operations during period of startup, shutdown, and malfunction shall not constitute representative conditions of performance test(s) unless otherwise specified in the applicable standard.

The owner or operator of an affected facility shall provide the Division thirty days prior notice of the performance test to afford the Division the opportunity to have an observer present. The Division may waive the thirty day notice requirement provided that arrangements satisfactory to the Division are made for earlier testing.

The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

(i) Sampling ports adequate for test methods applicable to such facility;

(ii) Safe sampling platform(s);

(iii) Safe access to sampling platform(s); and

(iv) Utilities for sampling and testing equipment.

Each performance test shall consist of at least three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic mean of results of at least three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances beyond the owner or operator's control, compliance may, upon the Division's approval, be determined using the arithmetic mean of the results of the two other runs.

Nothing in this section shall abrogate the Division's authority to conduct its own performance test(s) if so warranted.

d. Affirmative Defense Provision for Excess Emissions during Malfunctions

An affirmative defense to a claim of violation under these regulations is provided to owners and operators for civil penalty actions for excess emissions during periods of malfunction. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of evidence that:

(i) The excess emissions were caused by a sudden, unavoidable breakdown of equipment, or a sudden, unavoidable failure of a process to operate in the normal or usual manner, beyond the reasonable control of the owner or operator;

(ii) The excess emissions did not stem from any activity or event that could have reasonably been foreseen and avoided, or planned for, and could not have been avoided by better operation and maintenance practices;

(iii) Repairs were made as expeditiously as possible when the applicable emission limitations were being exceeded;

(iv) The amount and duration of the excess emissions (including any bypass) were minimized to the maximum extent practicable during periods of such emissions;

(v) All reasonably possible steps were taken to minimize the impact of the excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation (if at all possible);

(vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence;

(viii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

(ix) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This section is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement; and

(x) During the period of excess emissions, there were no exceedances of the relevant ambient air quality standards established in the Commissions' Regulations that could be attributed to the emitting source.

The owner or operator of the facility experiencing excess emissions during a malfunction shall notify the division verbally as soon as possible, but no later than noon of the Division's next working day, and shall submit written notification following the initial occurrence of the excess emissions by the end of the source's next reporting period. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to failures to meet federally promulgated performance standards or emission limits, including, but not limited to, new source performance standards and national emission standards for hazardous air pollutants. The affirmative defense provision does not apply to state implementation plan (sip) limits or permit limits that have been set taking into account potential emissions during malfunctions, including, but not necessarily limited to, certain limits with 30-day or longer averaging times, limits that indicate they apply during malfunctions, and limits that indicate they apply at all times or without exception.

e. Circumvention Clause

A person shall not build, erect, install, or use any article, machine, equipment, condition, or any contrivance, the use of which, without resulting in a reduction in the total release of air pollutants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of this regulation. No person shall circumvent this regulation by using more openings than is considered normal practice by the industry or activity in question.

f. Compliance Certifications

For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in the Colorado State Implementation Plan, nothing in the Colorado State Implementation Plan shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. Evidence that has the effect of making any relevant standard or permit term more stringent shall not be credible for proving a violation of the standard or permit term.

When compliance or non-compliance is demonstrated by a test or procedure provided by permit or other applicable requirement, the owner or operator shall be presumed to be in compliance or non-compliance unless other relevant credible evidence overcomes that presumption.

g. Affirmative Defense Provision for Excess Emissions During Startup and Shutdown

An affirmative defense is provided to owners and operators for civil penalty actions for excess emissions during periods of startup and shutdown. To establish the affirmative defense and to be relieved of a civil penalty in any action to enforce an applicable requirement, the owner or operator of the facility must meet the notification requirements below in a timely manner and prove by a preponderance of the evidence that:

(i) The periods of excess emissions that occurred during startup and shutdown were short and infrequent and could not have been prevented through careful planning and design;

(ii) The excess emissions were not part of a recurring pattern indicative of inadequate design, operation or maintenance;

(iii) If the excess emissions were caused by a bypass (an intentional diversion of control equipment), then the bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(iv) The frequency and duration of operation in startup and shutdown periods were minimized to the maximum extent practicable;

(v) All possible steps were taken to minimize the impact of excess emissions on ambient air quality;

(vi) All emissions monitoring systems were kept in operation (if at all possible);

(vii) The owner or operator's actions during the period of excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence; and,

(viii) At all times, the facility was operated in a manner consistent with good practices for minimizing emissions. This subparagraph is intended solely to be a factor in determining whether an affirmative defense is available to an owner or operator, and shall not constitute an additional applicable requirement.

The owner or operator of the facility experiencing excess emissions during startup and shutdown shall notify the Division verbally as soon as possible, but no later than two (2) hours after the start of the next working day, and shall submit written quarterly notification following the initial occurrence of the excess emissions. The notification shall address the criteria set forth above.

The Affirmative Defense Provision contained in this section shall not be available to claims for injunctive relief.

The Affirmative Defense Provision does not apply to State Implementation Plan provisions or other requirements that derive from new source performance standards or national emissions standards for hazardous air pollutants, or any other federally enforceable performance standard or emission limit with an averaging time greater than twenty-four hours. In addition, an affirmative defense cannot be used by a single source or small group of sources where the excess emissions have the potential to cause an exceedance of the ambient air quality standards or Prevention of Significant Deterioration (PSD) increments.

In making any determination whether a source established an affirmative defense, the Division shall consider the information within the notification required above and any other information the Division deems necessary, which may include, but is not limited to, physical inspection of the facility and review of documentation pertaining to the maintenance and operation of process and air pollution control equipment.

4. Compliance Requirements

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.C.9., V.C.11. & 16.d. and § 25-7-122.1(2), C.R.S.

a. The permittee must comply with all conditions of the Operating Permit. Any permit noncompliance relating to federally-enforceable terms or conditions constitutes a violation of the federal act, as well as the state act and Regulation No. 3. Any permit noncompliance relating to state-only terms or conditions constitutes a violation of the state act and Regulation No. 3, shall be enforceable pursuant to state law, and shall not be enforceable by citizens under § 304 of the federal act. Any such violation of the federal act, the state act or regulations implementing either statute is grounds for enforcement action, for permit termination, revocation and reissuance or modification or for denial of a permit renewal application.

b. It shall not be a defense for a permittee in an enforcement action or a consideration in favor of a permittee in a permit termination, revocation or modification action or action denying a permit renewal application that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.

c. The permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of any request by the permittee for a permit modification, revocation and reissuance, or termination, or any notification of planned changes or anticipated noncompliance does not stay any permit condition, except as provided in §§ X. and XI. of Regulation No. 3, Part C.

d. The permittee shall furnish to the Air Pollution Control Division, within a reasonable time as specified by the Division, any information that the Division may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Division copies of records required to be kept by the permittee, including information claimed to be confidential. Any information subject to a claim of confidentiality shall be specifically identified and submitted separately from information not subject to the claim.

e. Any schedule for compliance for applicable requirements with which the source is not in compliance at the time of permit issuance shall be supplemental, and shall not sanction noncompliance with, the applicable requirements on which it is based.

f. For any compliance schedule for applicable requirements with which the source is not in compliance at the time of permit issuance, the permittee shall submit, at least every 6 months unless a more frequent period is specified in the applicable requirement or by the Air Pollution Control Division, progress reports which contain the following:

   (i) dates for achieving the activities, milestones, or compliance required in the schedule for compliance, and dates when such activities, milestones, or compliance were achieved; and

   (ii) an explanation of why any dates in the schedule of compliance were not or will not be met, and any preventive or corrective measures adopted.

g. The permittee shall not knowingly falsify, tamper with, or render inaccurate any monitoring device or method required to be maintained or followed under the terms and conditions of the Operating Permit.

5. Emergency Provisions

Regulation No. 3, 5 CCR 1001-5, Part C, § VII

An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed the technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. "Emergency" does not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. An emergency constitutes an affirmative defense to an enforcement action brought for noncompliance with a technology-based emission limitation if the permittee demonstrates, through properly signed, contemporaneous operating logs, or other relevant evidence that:

a. an emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. the permitted facility was at the time being properly operated;

c. during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit; and

d. the permittee submitted oral notice of the emergency to the Air Pollution Control Division no later than noon of the next working day following the emergency, and followed by written notice within one month of the time when emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

This emergency provision is in addition to any emergency or malfunction provision contained in any applicable requirement.

6. Emission Controls for Asbestos

Regulation No. 8, 5 CCR 1001-10, Part B

The permittee shall not conduct any asbestos abatement activities except in accordance with the provisions of Regulation No. 8, Part B, "asbestos control."

7. Emissions Trading, Marketable Permits, Economic Incentives

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.13.

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are specifically provided for in the permit.

8. Fee Payment

C.R.S. §§ 25-7-114.1(6) and 25-7-114.7

a. The permittee shall pay an annual emissions fee in accordance with the provisions of C.R.S. § 25-7-114.7. A 1% per month late payment fee shall be assessed against any invoice amounts not paid in full on the 91st day after the date of invoice, unless a permittee has filed a timely protest to the invoice amount.

b. The permittee shall pay a permit processing fee in accordance with the provisions of C.R.S. § 25-7-114.7. If the Division estimates that processing of the permit will take more than 30 hours, it will notify the permittee of its estimate of what the actual charges may be prior to commencing any work exceeding the 30 hour limit.

c. The permittee shall pay an APEN fee in accordance with the provisions of C.R.S § 25-7-114.1(6) for each APEN or revised APEN filed.

9. Fugitive Particulate Emissions

Regulation No. 1, 5 CCR 1001-3, § III.D.1.

The permittee shall employ such control measures and operating procedures as are necessary to minimize fugitive particulate emissions into the atmosphere, in accordance with the provisions of Regulation No. 1, § III.D.1.

10. Inspection and Entry

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.16.b.

Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Air Pollution Control Division, or any authorized representative, to perform the following:

a. enter upon the permittee's premises where an Operating Permit source is located, or emissions-related activity is conducted, or where records must be kept under the terms of the permit;

b. have access to, and copy, at reasonable times, any records that must be kept under the conditions of the permit;

c. inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the Operating Permit;

d. sample or monitor at reasonable times, for the purposes of assuring compliance with the Operating Permit or applicable requirements, any substances or parameters.

11. Minor Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C, §§ X. & XI.

The permittee shall submit an application for a minor permit modification before making the change requested in the application. The permit shield shall not extend to minor permit modifications.

12. New Source Review

Regulation No. 3, 5 CCR 1001-5, Part B

The permittee shall not commence construction or modification of a source required to be reviewed under the New Source Review provisions of Regulation No. 3, Part B, without first receiving a construction permit.

13. No Property Rights Conveyed

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.11.d.

This permit does not convey any property rights of any sort, or any exclusive privilege.

14. Odor

Regulation No. 2, 5 CCR 1001-4, Part A

As a matter of state law only, the permittee shall comply with the provisions of Regulation No. 2 concerning odorous emissions.

15. Off-Permit Changes to the Source

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.B.

The permittee shall record any off-permit change to the source that causes the emissions of a regulated pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from the change, including any other data necessary to show compliance with applicable ambient air quality standards. The permittee shall provide contemporaneous notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit . The permit shield shall not apply to any off-permit change.

16. Opacity

Regulation No. 1, 5 CCR 1001-3, §§ I., II.

The permittee shall comply with the opacity emissions limitation set forth in Regulation No. 1, §§ I.-II.

17. Open Burning

Regulation No. 9, 5 CCR 1001-11

The permittee shall obtain a permit from the Division for any regulated open burning activities in accordance with provisions of Regulation No. 9.

18. Ozone Depleting Compounds

Regulation No. 15, 5 CCR 1001-17

The permittee shall comply with the provisions of Regulation No. 15 concerning emissions of ozone depleting compounds. Sections I., II.C., II.D., III. IV., and V. of Regulation No. 15 shall be enforced as a matter of state law only.

19. Permit Expiration and Renewal

Regulation No. 3, 5 CCR 1001-5, Part C, §§ III.B.6., IV.C., V.C.2.

a. The permit term shall be five (5) years. The permit shall expire at the end of its term. Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted.

b. Applications for renewal shall be submitted at least twelve months, but not more than 18 months, prior to the expiration of the Operating Permit. An application for permit renewal may address only those portions of the permit that require revision, supplementing, or deletion, incorporating the remaining permit terms by reference from the previous permit. A copy of any materials incorporated by reference must be included with the application.

20. Portable Sources

Regulation No. 3, 5 CCR 1001-5, Part C, § II.D.

Portable Source permittees shall notify the Air Pollution Control Division at least 10 days in advance of each change in location.

21. Prompt Deviation Reporting

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

The permittee shall promptly report any deviation from permit requirements, including those attributable to malfunction conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.

"Prompt" is defined as follows:

a. Any definition of "prompt" or a specific timeframe for reporting deviations provided in an underlying applicable requirement as identified in this permit; or

b. Where the underlying applicable requirement fails to address the time frame for reporting deviations, reports of deviations will be submitted based on the following schedule:

(i) For emissions of a hazardous air pollutant or a toxic air pollutant (as identified in the applicable regulation) that continue for more than an hour in excess of permit requirements, the report shall be made within 24 hours of the occurrence;

(ii) For emissions of any regulated air pollutant, excluding a hazardous air pollutant or a toxic air pollutant that continue for more than two hours in excess of permit requirements, the report shall be made within 48 hours; and

(iii) For all other deviations from permit requirements, the report shall be submitted every six (6) months, except as otherwise specified by the Division in the permit in accordance with paragraph 22.d. below.

c. If any of the conditions in paragraphs b.i or b.ii above are met, the source shall notify the Division by telephone (303-692-3155) or facsimile (303-782-0278) based on the timetables listed above. *[Explanatory note: Notification by telephone or facsimile must specify that this notification is a deviation report for an Operating Permit.]* A written notice, certified consistent with General Condition 2.a. above (Certification Requirements), shall be submitted within 10 working days of the occurrence. All deviations reported under this section shall also be identified in the 6-month report required above.

"Prompt reporting" does not constitute an exception to the requirements of "Emergency Provisions" for the purpose of avoiding enforcement actions.

22. Record Keeping and Reporting Requirements

Regulation No. 3, 5 CCR 1001-5, Part A, § II.; Part C, §§ V.C.6., V.C.7.

a. Unless otherwise provided in the source specific conditions of this Operating Permit, the permittee shall maintain compliance monitoring records that include the following information:

(i) date, place as defined in the Operating Permit, and time of sampling or measurements;

(ii) date(s) on which analyses were performed;

(iii) the company or entity that performed the analysis;

(iv) the analytical techniques or methods used;

(v) the results of such analysis; and

(vi) the operating conditions at the time of sampling or measurement.

b. The permittee shall retain records of all required monitoring data and support information for a period of at least five (5) years from the date of the monitoring sample, measurement, report or application. Support information, for this purpose, includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the Operating Permit. With prior approval of the Air Pollution Control Division, the permittee may maintain any of the above records in a computerized form.

c. Permittees must retain records of all required monitoring data and support information for the most recent twelve (12) month period, as well as compliance certifications for the past five (5) years on-site at all times. A permittee

shall make available for the Air Pollution Control Division's review all other records of required monitoring data and support information required to be retained by the permittee upon 48 hours advance notice by the Division.

d. The permittee shall submit to the Air Pollution Control Division all reports of any required monitoring at least every six (6) months, unless an applicable requirement, the compliance assurance monitoring rule, or the Division requires submission on a more frequent basis. All instances of deviations from any permit requirements must be clearly identified in such reports.

e. The permittee shall file an Air Pollutant Emissions Notice ("APEN") prior to constructing, modifying, or altering any facility, process, activity which constitutes a stationary source from which air pollutants are or are to be emitted, unless such source is exempt from the APEN filing requirements of Regulation No. 3, Part A, § II.D. A revised APEN shall be filed annually whenever a significant change in emissions, as defined in Regulation No. 3, Part A, § II.C.2., occurs; whenever there is a change in owner or operator of any facility, process, or activity; whenever new control equipment is installed; whenever a different type of control equipment replaces an existing type of control equipment; whenever a permit limitation must be modified; or before the APEN expires. An APEN is valid for a period of five years. The five-year period recommences when a revised APEN is received by the Air Pollution Control Division. Revised APENs shall be submitted no later than 30 days before the five-year term expires. Permittees submitting revised APENs to inform the Division of a change in actual emission rates must do so by April 30 of the following year. Where a permit revision is required, the revised APEN must be filed along with a request for permit revision. APENs for changes in control equipment must be submitted before the change occurs. Annual fees are based on the most recent APEN on file with the Division.

23. Reopenings for Cause

Regulation No. 3, 5 CCR 1001-5, Part C, § XIII.

a. The Air Pollution Control Division shall reopen, revise, and reissue Operating Permits; permit reopenings and reissuance shall be processed using the procedures set forth in Regulation No. 3, Part C, § III., except that proceedings to reopen and reissue permits affect only those parts of the permit for which cause to reopen exists.

b. The Division shall reopen a permit whenever additional applicable requirements become applicable to a major source with a remaining permit term of three or more years, unless the effective date of the requirements is later than the date on which the permit expires, or unless a general permit is obtained to address the new requirements; whenever additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program; whenever the Division determines the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or whenever the Division determines that the permit must be revised or revoked to assure compliance with an applicable requirement.

c. The Division shall provide 30 days' advance notice to the permittee of its intent to reopen the permit, except that a shorter notice may be provided in the case of an emergency.

d. The permit shield shall extend to those parts of the permit that have been changed pursuant to the reopening and reissuance procedure.

24. Section 502(b)(10) Changes

Regulation No. 3, 5 CCR 1001-5, Part C, § XII.A.

The permittee shall provide a minimum 7-day advance notification to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit. The permittee shall attach a copy of each such notice given to its Operating Permit.

25. Severability Clause

Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.10.

In the event of a challenge to any portion of the permit, all emissions limits, specific and general conditions, monitoring, record keeping and reporting requirements of the permit, except those being challenged, remain valid and enforceable.

26. Significant Permit Modifications

Regulation No. 3, 5 CCR 1001-5, Part C § III.B.2.

The permittee shall not make a significant modification required to be reviewed under Regulation No. 3, Part B ("Construction Permit" requirements) without first receiving a construction permit. The permittee shall submit a complete Operating Permit application or application for an Operating Permit revision for any new or modified source within twelve months of commencing operation, to the address listed in Item 1 in Appendix D of this permit. If the permittee chooses to use the "Combined Construction/Operating Permit" application procedures of Regulation No. 3, Part C, then the Operating Permit must be received prior to commencing construction of the new or modified source.

27. Special Provisions Concerning the Acid Rain Program

Regulation No. 3, 5 CCR 1001-5, Part C, §§ V.C.1.b. & 8

a. Where an applicable requirement of the federal act is more stringent than an applicable requirement of regulations promulgated under Title IV of the federal act, 40 Code of Federal Regulations (CFR) Part 72, both provisions shall be incorporated into the permit and shall be federally enforceable.

b. Emissions exceeding any allowances that the source lawfully holds under Title IV of the federal act or the regulations promulgated thereunder, 40 CFR Part 72, are expressly prohibited.

28. Transfer or Assignment of Ownership

Regulation No. 3, 5 CCR 1001-5, Part C, § II.C.

No transfer or assignment of ownership of the Operating Permit source will be effective unless the prospective owner or operator applies to the Air Pollution Control Division on Division-supplied Administrative Permit Amendment forms, for reissuance of the existing Operating Permit. No administrative permit shall be complete until a written agreement containing a specific date for transfer of permit, responsibility, coverage, and liability between the permittee and the prospective owner or operator has been submitted to the Division.

29. Volatile Organic Compounds

Regulation No. 7, 5 CCR 1001-9, §§ III & V.

The requirements in paragraphs a, b and e apply to sources located in an ozone non-attainment area or the Denver 1-hour ozone attainment/maintenance area. The requirements in paragraphs c and d apply statewide.

a. All storage tank gauging devices, anti-rotation devices, accesses, seals, hatches, roof drainage systems, support structures, and pressure relief valves shall be maintained and operated to prevent detectable vapor loss except when opened, actuated, or used for necessary and proper activities (e.g. maintenance). Such opening, actuation, or use shall be limited so as to minimize vapor loss.

   Detectable vapor loss shall be determined visually, by touch, by presence of odor, or using a portable hydrocarbon analyzer. When an analyzer is used, detectable vapor loss means a VOC concentration exceeding 10,000 ppm. Testing shall be conducted as in Regulation No. 7, Section VIII.C.3.

b. Except when otherwise provided by Regulation No. 7, all volatile organic compounds, excluding petroleum liquids, transferred to any tank, container, or vehicle compartment with a capacity exceeding 212 liters (56 gallons), shall be transferred using submerged or bottom filling equipment. For top loading, the fill tube shall reach within six inches of the bottom of the tank compartment. For bottom-fill operations, the inlet shall be flush with the tank bottom.

c. The permittee shall not dispose of volatile organic compounds by evaporation or spillage unless Reasonably Available Control Technology (RACT) is utilized.

d. No owner or operator of a bulk gasoline terminal, bulk gasoline plant, or gasoline dispensing facility as defined in Colorado Regulation No. 7, Section VI, shall permit gasoline to be intentionally spilled, discarded in sewers, stored in open containers, or disposed of in any other manner that would result in evaporation.

e. Beer production and associated beer container storage and transfer operations involving volatile organic compounds with a true vapor pressure of less than 1.5 PSIA actual conditions are exempt from the provisions of paragraph b, above.

30. Wood Stoves and Wood burning Appliances

Regulation No. 4, 5 CCR 1001-6

The permittee shall comply with the provisions of Regulation No. 4 concerning the advertisement, sale, installation, and use of wood stoves and wood burning appliances.

OPERATING PERMIT APPENDICES

A - INSPECTION INFORMATION
B - MONITORING AND PERMIT DEVIATION REPORT
C - COMPLIANCE CERTIFICATION REPORT
D - NOTIFICATION ADDRESSES
E - PERMIT ACRONYMS
F - PERMIT MODIFICATIONS
G - PERMANENT ENGINE AOS APPLICABILITY REPORTS

*DISCLAIMER:

None of the information found in these Appendices shall be considered to be State or Federally enforceable, except as otherwise provided in the permit, and is presented to assist the source, permitting authority, inspectors, and citizens.

APPENDIX A - Inspection Information

Directions to Plant:

Travel I-76 to Exit 80 (Ft. Morgan) and turn north on S.R. 52 for 3.8 miles. Turn west on County Road W for 1.5 miles, then turn south on County Road 17 for 0.25 miles.

Safety Equipment Required:

Eye Protection, Hard Hat, Safety Shoes, Hearing Protection.

Facility Plot Plan:

Figure 1 (following page) shows the plot plan as submitted on September 26, 1997 with the source's Title V Operating Permit Application.

List of Insignificant Activities:

The following list of insignificant activities was provided by the source to assist in the understanding of the facility layout. Since there is no requirement to update such a list, activities may have changed since the last filing.

The asterisk (*) denotes an insignificant activity source category based on the size of the activity, emissions levels from the activity or the production rate of the activity. The owner or operator of individual emission points in insignificant activity source categories marked with an asterisk (*) must maintain sufficient record keeping verifying that the exemption applies. Such records shall be made available for Division review upon request. (Colorado Regulation No. 3, Part C, Section II.E)

Insignificant activities and/or sources of emissions identified by the permittee are as follows:

<u>Units with emissions less than the APEN de minimis – criteria and non-criteria (Reg 3 Part C.II.E.3.a & b)*</u>

T-5301: 6,300 gal Ambitrol storage tank
T-5304: 8,400 gal condensate storage tank
T-5302: 12,600 gal disposal well surge storage tank
T-5308: 6,300 gal triethlyene glycol storage tank
T-5311: 105 gal flare liquid (condensate) storage tank
T-5400: 1,600 gal methanol storage tank
condensate truck loading equipment
Various drain sumps
fugitive VOC emissions from equipment leaks (formerly addressed in construction permit 94MR130-6)
Station emergency blowdowns

Fuel Burning Equipment less than 5 MMBtu/hr (Reg 3 Part C.II.E.3.k)*

Make and Model	No. of Units	Unit Heat Input Rate (MMBtu/hr)	Source Type
Modine Heater	1	0.075	Shop Heater
CATCO 1236 Catalytic Heaters	22	0.018	Field Separator Heaters
CATCO 2436 Catalytic Heaters	2	0.036	Inlet Regulator Building Heater
CATCO 1212 Catalytic Heaters	4	0.006	Plant Sump Heaters
Rheem 21V40-7	1	~ 0.075	Hot Water Heater
Lennex	1	0.075	AC Unit

Produced water storage tanks containing less 1% crude oil by volume on an annual average (Reg 3 Part C.II.E.3.uu)*

T-5312: 21,000 gal injection well surge tank
T-5313: 21,000 gal injection well surge tank

Note that tanks T-5312 and T-5313 are subject to APEN reporting requirements if actual, uncontrolled emissions exceed the APEN de minimis level (2 tons/yr for criteria pollutants). The most recent APENs submitted for these tanks were received on February 4, 2011.

Storage of butane, propane, or liquified petroleum gas in tanks less than 60,000 gal (Reg 3 Part C.II.E.3.zz)

V-5211, V-5212: LPG 50,000 gal pressurized storage vessels
V-5210: 50,000 gal pressurized Condensate tank

Storage tanks less than 40,000 gal capacity - lubricating oil (Reg 3 Part C.II.E.3.aaa)

T-5305: 6,300 gal lubricating oil storage tank
T-5309: 6,300 gal used lubricating oil storage tank
T-5310: 406 gal engine oil

Emergency generators operated < 250 hrs/yr (Reg 3, Part C.II.E.3.nnn.(ii))

EG-01: Waukesha emergency generator, Model No. VGF36GL, S/N C-11358/1, rated at 6843 Btu/hp-hr and 720 hp (engine commenced operation in 1994)

Note that if emissions from this unit exceed the APEN de minimis level (2 tons/yr), an APEN must be filed.

Domestic wastewater collection (Reg 3, Part C.II.E.3.ooo)

T-5307: Septic tank

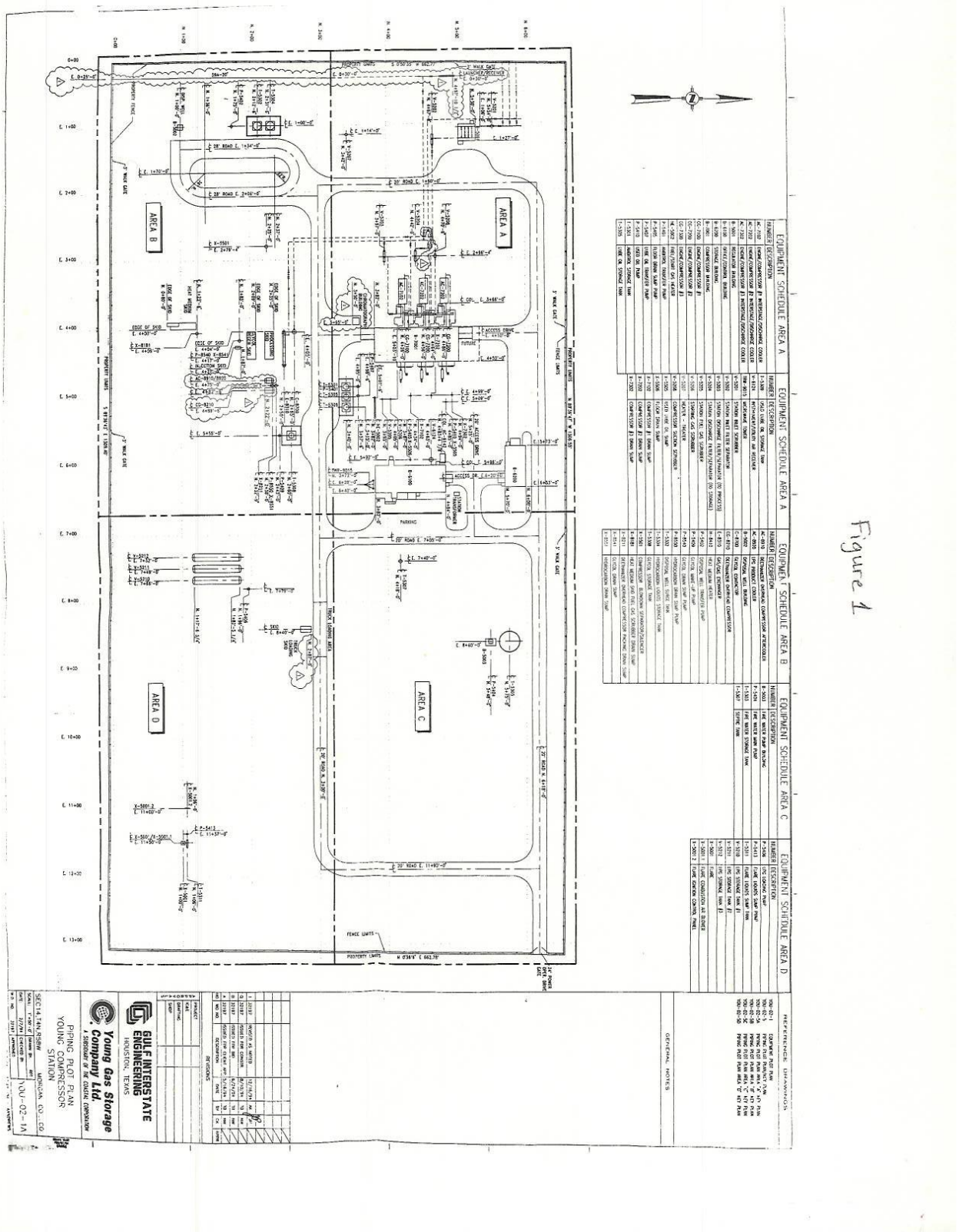

Figure 1

APPENDIX B

Reporting Requirements and Definitions

with codes ver 2/20/07

Please note that, pursuant to 113(c)(2) of the federal Clean Air Act, any person who knowingly:

(A) makes any false material statement, representation, or certification in, or omits material information from, or knowingly alters, conceals, or fails to file or maintain any notice, application, record, report, plan, or other document required pursuant to the Act to be either filed or maintained (whether with respect to the requirements imposed by the Administrator or by a State);

(B) fails to notify or report as required under the Act; or

(C) falsifies, tampers with, renders inaccurate, or fails to install any monitoring device or method required to be maintained or followed under the Act shall, upon conviction, be punished by a fine pursuant to title 18 of the United States Code, or by imprisonment for not more than 2 years, or both. If a conviction of any person under this paragraph is for a violation committed after a first conviction of such person under this paragraph, the maximum punishment shall be doubled with respect to both the fine and imprisonment.

The permittee must comply with all conditions of this operating permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.

The Part 70 Operating Permit program requires three types of reports to be filed for all permits.
All required reports must be certified by a responsible official.

Report #1: Monitoring Deviation Report (due at least every six months)

For purposes of this operating permit, the Division is requiring that the monitoring reports are due every six months unless otherwise noted in the permit. All instances of deviations from permit monitoring requirements must be clearly identified in such reports.

For purposes of this operating permit, monitoring means any condition determined by observation, by data from any monitoring protocol, or by any other monitoring which is required by the permit as well as the recordkeeping associated with that monitoring. This would include, for example, fuel use or process rate monitoring, fuel analyses, and operational or control device parameter monitoring.

Report #2: Permit Deviation Report (must be reported "promptly")

In addition to the monitoring requirements set forth in the permits as discussed above, each and every requirement of the permit is subject to deviation reporting. The reports must address deviations from permit requirements, including those attributable to malfunctions as defined in this Appendix, the probable cause of

such deviations, and any corrective actions or preventive measures taken. All deviations from any term or condition of the permit are required to be summarized or referenced in the annual compliance certification.

For purposes of this operating permit, "malfunction" shall refer to both emergency conditions and malfunctions. Additional discussion on these conditions is provided later in this Appendix.

For purposes of this operating permit, the Division is requiring that the permit deviation reports are due as set forth in General Condition 21. Where the underlying applicable requirement contains a definition of prompt or otherwise specifies a time frame for reporting deviations, that definition or time frame shall govern. For example, quarterly Excess Emission Reports required by an NSPS or Regulation No. 1, Section IV.

In addition to the monitoring deviations discussed above, included in the meaning of deviation for the purposes of this operating permit are any of the following:

(1) A situation where emissions exceed an emission limitation or standard contained in the permit;

(2) A situation where process or control device parameter values demonstrate that an emission limitation or standard contained in the permit has not been met;

(3) A situation in which observations or data collected demonstrates noncompliance with an emission limitation or standard or any work practice or operating condition required by the permit; or,

(4) A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only if the emission point is subject to CAM)

For reporting purposes, the Division has combined the Monitoring Deviation Report with the Permit Deviation Report. All deviations shall be reported using the following codes:

1 = Standard:	When the requirement is an emission limit or standard
2 = Process:	When the requirement is a production/process limit
3 = Monitor:	When the requirement is monitoring
4 = Test:	When the requirement is testing
5 = Maintenance:	When required maintenance is not performed
6 = Record:	When the requirement is recordkeeping
7 = Report:	When the requirement is reporting
8 = CAM:	A situation in which an excursion or exceedance as defined in 40CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
9 = Other:	When the deviation is not covered by any of the above categories

Report #3: Compliance Certification (annually, as defined in the permit)

Submission of compliance certifications with terms and conditions in the permit, including emission limitations, standards, or work practices, is required not less than annually.

Compliance Certifications are intended to state the compliance status of each requirement of the permit over the certification period. They must be based, at a minimum, on the testing and monitoring methods specified in the

permit that were conducted during the relevant time period. In addition, if the owner or operator knows of other material information (i.e. information beyond required monitoring that has been specifically assessed in relation to how the information potentially affects compliance status), that information must be identified and addressed in the compliance certification. The compliance certification must include the following:

- The identification of each term or condition of the permit that is the basis of the certification;
- Whether or not the method(s) used by the owner or operator for determining the compliance status with each permit term and condition during the certification period was the method(s) specified in the permit. Such methods and other means shall include, at a minimum, the methods and means required in the permit. If necessary, the owner or operator also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Federal Clean Air Act, which prohibits knowingly making a false certification or omitting material information;
- The status of compliance with the terms and conditions of the permit, and whether compliance was continuous or intermittent. The certification shall identify each deviation and take it into account in the compliance certification. Note that not all deviations are considered violations.[1]
- Such other facts as the Division may require, consistent with the applicable requirements to which the source is subject, to determine the compliance status of the source.

The Certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred. (only for emission points subject to CAM)

Note the requirement that the certification shall identify each deviation and take it into account in the compliance certification. Previously submitted deviation reports, including the deviation report submitted at the time of the annual certification, may be referenced in the compliance certification.

Startup, Shutdown, Malfunctions and Emergencies

Understanding the application of Startup, Shutdown, Malfunctions and Emergency Provisions, is very important in both the deviation reports and the annual compliance certifications.

Startup, Shutdown, and Malfunctions

Please note that exceedances of some New Source Performance Standards (NSPS) and Maximum Achievable Control Technology (MACT) standards that occur during Startup, Shutdown or Malfunctions may not be considered to be non-compliance since emission limits or standards often do not apply unless specifically stated in the NSPS. Such exceedances must, however, be reported as excess emissions per the NSPS/MACT rules and would still be noted in the deviation report. In regard to compliance certifications, the permittee should be

[1] For example, given the various emissions limitations and monitoring requirements to which a source may be subject, a deviation from one requirement may not be a deviation under another requirement which recognizes an exception and/or special circumstances relating to that same event.

confident of the information related to those deviations when making compliance determinations since they are subject to Division review. The concepts of Startup, Shutdown and Malfunctions also exist for Best Available Control Technology (BACT) sources, but are not applied in the same fashion as for NSPS and MACT sources.

Emergency Provisions

Under the Emergency provisions of Part 70 certain operational conditions may act as an affirmative defense against enforcement action if they are properly reported.

DEFINITIONS

Malfunction (NSPS) means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Malfunction (SIP) means any sudden and unavoidable failure of air pollution control equipment or process equipment or unintended failure of a process to operate in a normal or usual manner. Failures that are primarily caused by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Monitoring and Permit Deviation Report - Part I

1. Following is the **required** format for the Monitoring and Permit Deviation report to be submitted to the Division as set forth in General Condition 21. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

2. Part II of this Appendix B shows the format and information the Division will require for describing periods of monitoring and permit deviations, or malfunction or emergency conditions as indicated in the Table below. One Part II Form must be completed for each Deviation. Previously submitted reports (e.g. EER's or malfunctions) may be referenced and the form need not be filled out in its entirety.

FACILITY NAME: Young Gas Storage Company, Ltd. – Young Compressor Station
OPERATING PERMIT NO: 96OPMR177
REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates

Operating Permit Unit ID	Unit Description	Deviations Noted During Period?[1]		Deviation Code[2]	Malfunction/ Emergency Condition Reported During Period?	
		YES	NO		YES	NO
CG-7100	Superior ICE, S/N 32543					
CG-7100	Superior ICE, S/N 32544					
CG-7300	Superior ICE, S/N 32545					
DehyFlare	Propak Systems Triethylene Glycol Dehydrator, S/N E8360 and Facility Flare					
HMO, V-5207 & B001	One (1) Heatec, Model No. HCI-4010-40-PF-G, hot oil heater, rated at 4 MMBtu/hr, natural gas-fired. S/N 94149 One (1) heater-treater burner, rated at 0.283 MMBtu/hr, natural gas-fired One (1) Parker T-3600 boiler, rated at 0.2274 MMBtu/hr, natural gas-fired					
	General Conditions					
	Insignificant Activities					

[1] See previous discussion regarding what is considered to be a deviation. Determination of whether or not a deviation has occurred shall be based on a reasonable inquiry using readily available information.

[2]Use the following entries as appropriate:

1 = Standard: When the requirement is an emission limit or standard
2 = Process: When the requirement is a production/process limit
3 = Monitor: When the requirement is monitoring
4 = Test: When the requirement is testing
5 = Maintenance: When required maintenance is not performed
6 = Record: When the requirement is recordkeeping
7 = Report: When the requirement is reporting
8 = CAM: A situation in which an excursion or exceedance as defined in 40 CFR Part 64 (the Compliance Assurance Monitoring (CAM) Rule) has occurred.
9 = Other: When the deviation is not covered by any of the above categories

Monitoring and Permit Deviation Report - Part II

FACILITY NAME: Young Gas Storage Company, Ltd. – Young Compressor Station
OPERATING PERMIT NO: 96OPMR177
REPORTING PERIOD:

Is the deviation being claimed as an: Emergency _____ Malfunction_____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction _____
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Operating Permit Condition Number Citation

Explanation of Period of Deviation

Duration (start/stop date & time)

Action Taken to Correct the Problem

Measures Taken to Prevent a Reoccurrence of the Problem

Dates of Malfunctions/Emergencies Reported (if applicable)

Deviation Code _____ Division Code QA: _____

SEE EXAMPLE ON THE NEXT PAGE

EXAMPLE

FACILITY NAME: Acme Corp.
OPERATING PERMIT NO: 96OPZZXXX
REPORTING PERIOD: 1/1/04 - 6/30/06

Is the deviation being claimed as an: Emergency _____ Malfunction __XX____ N/A

(For NSPS/MACT) Did the deviation occur during: Startup _____ Shutdown _____ Malfunction
Normal Operation _____

OPERATING PERMIT UNIT IDENTIFICATION:

Asphalt Plant with a Scrubber for Particulate Control - Unit XXX

Operating Permit Condition Number Citation

Section II, Condition 3.1 - Opacity Limitation

Explanation of Period of Deviation

Slurry Line Feed Plugged

Duration

START- 1730 4/10/06
END- 1800 4/10/06

Action Taken to Correct the Problem

Line Blown Out

Measures Taken to Prevent Reoccurrence of the Problem

Replaced Line Filter

Dates of Malfunction/Emergencies Reported (if applicable)

5/30/06 to A. Einstein, APCD

Deviation Code _____ Division Code QA: _____

Monitoring and Permit Deviation Report - Part III

REPORT CERTIFICATION

SOURCE NAME: Young Gas Storage Company, Ltd. – Young Compressor Station

FACILITY IDENTIFICATION NUMBER: 0870051

PERMIT NUMBER: 96OPMR177

REPORTING PERIOD:_____ (see first page of the permit for specific reporting period and dates)

All information for the Title V Semi-Annual Deviation Reports must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

STATEMENT OF COMPLETENESS

I have reviewed the information being submitted in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this submittal are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in Sub-Section 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of Sub-Section 25-7 122.1, C.R.S.

Printed or Typed Name Title

Signature of Responsible Official Date Signed

Note: Deviation reports shall be submitted to the Division at the address given in Appendix D of this permit. No copies need be sent to the U.S. EPA.

APPENDIX C

Format for Annual Compliance Certification Reports

with codes ver 2/20/07

Following is the format for the Compliance Certification report to be submitted to the Division and the U.S. EPA annually based on the effective date of the permit. The Table below must be completed for all equipment or processes for which specific Operating Permit terms exist.

FACILITY NAME: Young Gas Storage Company, Ltd. – Young Compressor Station

OPERATING PERMIT NO: 96OPMR177
REPORTING PERIOD:

I. Facility Status

___ During the entire reporting period, this source was in compliance with **ALL** terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference. The method(s) used to determine compliance is/are the method(s) specified in the Permit.

___ With the possible exception of the deviations identified in the table below, this source was in compliance with all terms and conditions contained in the Permit, each term and condition of which is identified and included by this reference, during the entire reporting period. The method used to determine compliance for each term and condition is the method specified in the Permit, unless otherwise indicated and described in the deviation report(s). Note that not all deviations are considered violations.

Operating Permit Unit ID	Unit Description	Deviations Reported [1]		Monitoring Method per Permit?[2]		Was compliance continuous or intermittent?[3]	
		Previous	Current	YES	NO	Continuous	Intermittent
CG-7100	Superior ICE, S/N 32543						
CG-7200	Superior ICE, S/N 32544						
CG-7300	Superior ICE, S/N 32545						
DehyFlare	Propak Systems Triethylene Glycol Dehydrator, S/N E8360 and Facility Flare						
HMO, V-5207 & B001	One (1) Heatec, Model No. HCI-4010-40-PF-G, hot oil heater, rated at 4 MMBtu/hr, natural gas-fired. S/N 94149 One (1) heater-treater burner, rated at 0.283 MMBtu/hr, natural gas-fired One (1) Parker T-3600 boiler, rated at 0.2274 MMBtu/hr, natural gas-fired						
	General Conditions						
	Insignificant Activities [4]						

[1] If deviations were noted in a previous deviation report , put an "X" under "previous". If deviations were noted in the current deviation report (i.e. for the last six months of the annual reporting period), put an "X" under "current". Mark both columns if both apply.

[2] Note whether the method(s) used to determine the compliance status with each term and condition was the method(s) specified in the permit. If it was not, mark "no" and attach additional information/explanation.

[3] Note whether the compliance status with of each term and condition provided was continuous or intermittent. "Intermittent Compliance" can mean either that noncompliance has occurred or that the owner or operator has data sufficient to certify compliance only on an intermittent basis. Certification of intermittent compliance therefore does not necessarily mean that any noncompliance has occurred.

NOTE:

The Periodic Monitoring requirements of the Operating Permit program rule are intended to provide assurance that even in the absence of a continuous system of monitoring the Title V source can demonstrate whether it has operated in continuous compliance for the duration of the reporting period. Therefore, if a source 1) conducts all of the monitoring and recordkeeping required in its permit, even if such activities are done periodically and not continuously, and if 2) such monitoring and recordkeeping does not indicate non-compliance, and if 3) the Responsible Official is not aware of any credible evidence that indicates non-compliance, then the Responsible Official can certify that the emission point(s) in question were in continuous compliance during the applicable time period.

[4] Compliance status for these sources shall be based on a reasonable inquiry using readily available information.

II. Status for Accidental Release Prevention Program:

A. This facility _____ is subject _____ is not subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act)

B. If subject: The facility _____ is _____ is not in compliance with all the requirements of section 112(r).

1. A Risk Management Plan _____ will be _____ has been submitted to the appropriate authority and/or the designated central location by the required date.

III. Certification

All information for the Annual Compliance Certification must be certified by a responsible official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name Title

Signature Date Signed

NOTE: All compliance certifications shall be submitted to the Air Pollution Control Division and to the Environmental Protection Agency at the addresses listed in Appendix D of this Permit.

APPENDIX D

Notification Addresses

1. **Air Pollution Control Division**

Colorado Department of Public Health and Environment
Air Pollution Control Division
Operating Permits Unit
APCD-SS-B1
4300 Cherry Creek Drive S.
Denver, CO 80246-1530

ATTN: Matt Burgett

2. **United States Environmental Protection Agency**

Compliance Notifications:

Office of Enforcement, Compliance and Environmental Justice
Mail Code 8ENF-T
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

Permit Modifications, Off Permit Changes:

Office of Partnerships and Regulatory Assistance
Air and Radiation Programs, 8P-AR
U.S. Environmental Protection Agency, Region VIII
1595 Wynkoop Street
Denver, CO 80202-1129

APPENDIX E

Permit Acronyms

Listed Alphabetically:

AIRS -	Aerometric Information Retrieval System
AP-42 -	EPA Document Compiling Air Pollutant Emission Factors
APEN -	Air Pollution Emission Notice (State of Colorado)
APCD -	Air Pollution Control Division (State of Colorado)
ASTM -	American Society for Testing and Materials
BACT -	Best Available Control Technology
BTU -	British Thermal Unit
CAA -	Clean Air Act (CAAA = Clean Air Act Amendments)
CCR -	Colorado Code of Regulations
CEM -	Continuous Emissions Monitor
CF -	Cubic Feet (SCF = Standard Cubic Feet)
CFR -	Code of Federal Regulations
CO -	Carbon Monoxide
COM -	Continuous Opacity Monitor
CRS -	Colorado Revised Statute
EF -	Emission Factor
EPA -	Environmental Protection Agency
FI -	Fuel Input Rate in MMBtu/hr
FR -	Federal Register
G -	Grams
Gal -	Gallon
GPM -	Gallons per Minute
HAPs -	Hazardous Air Pollutants
HP -	Horsepower
HP-HR -	Horsepower Hour (G/HP-HR = Grams per Horsepower Hour)
LAER -	Lowest Achievable Emission Rate
LBS -	Pounds
M -	Thousand
MM -	Million
MMscf -	Million Standard Cubic Feet
MMscfd -	Million Standard Cubic Feet per Day
N/A or NA -	Not Applicable
NOx -	Nitrogen Oxides
NESHAP -	National Emission Standards for Hazardous Air Pollutants
NSPS -	New Source Performance Standards
P -	Process Weight Rate in Tons/Hr
PE -	Particulate Emissions
PM -	Particulate Matter
PM_{10} -	Particulate Matter Under 10 Microns

PSD -	Prevention of Significant Deterioration
PTE -	Potential To Emit
RACT -	Reasonably Available Control Technology
SCC -	Source Classification Code
SCF -	Standard Cubic Feet
SIC -	Standard Industrial Classification
SO_2 -	Sulfur Dioxide
TPY -	Tons Per Year
TSP -	Total Suspended Particulate
VOC -	Volatile Organic Compounds

APPENDIX F

Permit Modifications

DATE OF REVISION	TYPE OF REVISION	SECTION NUMBER, CONDITION NUMBER	DESCRIPTION OF REVISION

APPENDIX G

Permanent Engine AOS Applicability Reports

ver 10/12/12

Note: A MS Word version of this Appendix can be found at:

http://www.colorado.gov/cs/Satellite/CDPHE-AP/CBON/1251597655816

DISCLAIMER:

These are only example reports and do not cover all possible requirements.

Engine AOS Applicability Report Certification Language

All information for the Applicability Reports must be certified by either 1) for Operating Permits, a Responsible Official as defined in Colorado Regulation No. 3, Part A, Section I.B.38. or 2) for Construction and General Permits, the person legally authorized to act on behalf of the source. This signed certification document must be packaged with the documents being submitted.

I have reviewed this certification in its entirety and, based on information and belief formed after reasonable inquiry, I certify that the statements and information contained in this certification are true, accurate and complete. Further, I agree that by signing and submitting these documents I agree that any new requirements identified in the Applicability Report(s) shall be considered to be Applicable Requirements as defined in Colorado Regulation No. 3, section I.B.9., and that such requirements shall be enforceable by the Division and its agents and shall be considered to be revisions to the underlying permit(s) referenced in the Report(s) until such time as the Permit is revised to reflect the new requirements.

Please note that the Colorado Statutes state that any person who knowingly, as defined in § 18-1-501(6), C.R.S., makes any false material statement, representation, or certification in this document is guilty of a misdemeanor and may be punished in accordance with the provisions of § 25-7 122.1, C.R.S.

Printed or Typed Name

Title

Signature Date Signed

Colorado Regulation No. 7
Sections XVI and XVII.E

DISCLAIMER: This is only an example report and does not cover all possible Reg 7 requirements.

Company: Acme Gas Processing
Source ID: 999/1234/001
Permit #: 93OPXX999
Date: October 1, 2008

Determination of compliance and reporting requirements for a

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Construction date: July 1, 2007

Note: If the engine is exempt from a requirement due to construction date or was relocated from within Colorado, supporting documentation must be provided.

Determination of Regulation No. 7 requirements:

Regulation No. 7, § XVI

☐ Does not apply to this engine. Engine is not located in the ozone nonattainment area or does not have a manufacturer's design rate greater than 500 horsepower or did not commence operation on or after June 1, 2004.

☐ Does apply to this engine and applicable emissions controls have been installed.

Regulation No. 7, § XVII.E

☐ Does not apply to this engine. Engine does not have a maximum horsepower greater than 100 or the construction or relocation date precedes the applicability dates.

☐ Does apply to this engine. The following emission limits apply to the engine:

NO_X (g/hp-hr): 2.0
CO (g/hp-hr): 4.0
VOC (g/hp-hr): 1.0

Max Engine HP	Construction or Relocation Date	Emission Standards in g/hp-hr		
		NO_X	CO	VOC
100<Hp<500	January 1, 2008	2.0	4.0	1.0
	January 1, 2011	1.0	2.0	0.7
500≤Hp	July 1, 2007	2.0	4.0	1.0
	July 1, 2010	1.0	2.0	0.7

NSPS JJJJ Example Report Format

DISCLAIMER: This is only an example report and does not cover all possible JJJJ requirements.

Note that as of October 1, 2011 that the Division has not yet adopted NSPS JJJJ. Until such time as it does, any engine subject to NSPS will be subject only under Federal law. Once the Division adopts NSPS JJJJ, there will be an additional step added to the determination of the NSPS. Under the provisions of Regulation No. 6, Part B, § I.B (which is referenced in Part A), any engine relocated from outside of the State of Colorado into the State of Colorado is considered to be a new source, subject to the requirements of NSPS JJJJ.

NSPS Subpart JJJJ: Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Company: Acme Gas Processing
Source ID: 999/1234/001
Permit #: 93OPXX999
Date: October 1, 2008

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Engine Type: 2 Stroke Rich Burn
Manufacture Date: July 1, 2007
Date Engine Ordered: April 1, 2007

Note: If the engine is exempt from a requirement due to construction/manufacture date, supporting documentation must be provided.

Upon adoption of NSPS Subpart JJJJ into Colorado Regulation No. 6, Part A, if the engine is exempt because the engine was relocated within the state of Colorado, supporting documentation must be provided.

☐ NSPS JJJJ **does not apply** to this engine.

☐ NSPS JJJJ **does apply** to this engine.

Note: Using the format below, the source must submit to the Division an analysis of all of the NSPS JJJJ applicable requirements that apply to this specific engine. **The analysis below is an example only**, based on a hypothetical engine that is a rich burn engine, greater than 500 HP, with a manufacture date after July 1, 2007.

Determination of NSPS JJJJ requirements:

60.4230 Applicability

(a)(4)(i) Applies to this engine since it is a rich burn engine, greater than 500 HP, with a manufacture date after July 1, 2007.

60.4233 Emission Standards for Owners and Operators

(e) Owners and operators of stationary SI ICE with a maximum engine power greater than 100 HP must comply with the standards in Table 1.

Non-Emergency SI, Natural Gas, HP≥500, Manufactured after 7/1/2007

NO_x	2.0 g/HP-hr or 160 ppmvd@15% O_2
CO	4.0 g/HP-hr or 540 ppmvd@15% O_2
VOC	1.0 g/HP-hr or 86 ppmvd@15% O_2

Other Requirements for Owners and Operators

60.4234 Emission standards must be met for the lifetime of the engine.
60.4235 N/A - Sulfur content of gasoline.
60.4236 N/A (for now) - After July 1, 2009 owners and operators may not install engines with a power rating ≥ 500HP that do not meet the emissions standards in 60.4230.
60.4237 N/A - Emergency Engines.

60.4238 - 60.4242 Compliance Requirements for Manufacturers – (Not Applicable)

60.4243 Compliance Requirements for Owners and Operators

(b)(2)(ii) To maintain compliance with the emission limits in 60.4233, owners of SI ICE ≥ 500HP must:

- Keep a maintenance plan;
- Keep records of conducted maintenance;
- Maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions;
- Conduct an initial performance test; and
- Conduct subsequent performance tests every 8,760 hours or every three years, which ever comes first, in order to demonstrate compliance with the emission limits.

(g) Air to fuel ratio controllers (AFRCs) must be maintained and operated appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times.

60.4244 Testing Requirements for Owners and Operators

(a) Each performance test must be conducted within 10% of the highest achievable load and must comply with the testing requirements listed in 60.8 and Table 2 of NSPS JJJJ.

(b) Performance tests may not be conducted during periods of startup, shutdown, or malfunction, as specified in 60.8(c). If the engine is non-operational when a performance test is due, the engine does not need to be started up just to test it, but will need to be tested immediately upon startup.

(c) Three separate test runs must be conducted for each performance test as specified by 60.8(f). Each run must be within 10% of max load and be at least 1 hour in duration.

(d) To determine compliance with the NO_x, CO, and VOC mass per unit output emission limitations, the measured concentration must be converted using the equations outlined in this section of NSPS JJJJ.

60.4245 Notification, Reports, and Records for Owners and Operators

(a) Owners of all stationary SI ICE must keep records of the following:
(1) All notifications submitted to comply with this subpart;
(2) Maintenance conducted on the engine;
(3) N/A - Manufacturer information for certified engines, and
(4) Documentation that shows non-certified engines are in compliance with the emission standards.

(b) N/A – For emergency engines only.

(c) Owners of non-certified engines ≥ 500HP must submit an initial notification as required in 60.7(a)(1) which includes the following information:
(1) Name and address of the owner or operator;
(2) The address of the affected source;
(3) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
(4) Emission control equipment; and
(5) Fuel used.

CONCLUSION OF FINDINGS (EXAMPLE ONLY)

In general, Acme's 1,235HP, Waukesha 7042 GSI engine is subject to the emissions limitations summarized in Table 1 of NSPS JJJJ. ACME will meet these emission limitations using an AFRC and a non-selective catalytic converter (NSCR). These emission rates will be met throughout the life of the engine. A maintenance plan will be kept and all maintenance activities will be recorded. Compliance with the emission limits will be confirmed by the initial performance tests, which shall be conducted following the procedures outlined in 60.4244. Copies of performance test results will be submitted within 60 days of the completion of each test. Since this is an uncertified engine, an initial notification will be submitted including all of the requested information in 40.4245 within 30 days of startup. ACME will keep records of all compliance related materials.

MACT ZZZZ Example Report Format

DISCLAIMER: This is only an example report and does not cover all possible ZZZZ requirements.

MACT Subpart ZZZZ: National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

Company: Acme Gas Processing
Source ID: 999/1234/001
Permit #: 93OPXX999
Date: October 1, 2008

Manufacturer: BestEngineCompany
Model: 777 LowNox
Nameplate HP: 1340
Engine Type: 2 Stroke Rich Burn
Manufacture Date: July 1, 2007
Date Engine Ordered: April 1, 2007

Note: If the engine is exempt from a requirement due to construction/reconstruction date, supporting documentation must be provided.

☐ MACT ZZZZ **does not apply** to this engine.

☐ MACT ZZZZ **does apply** to this engine.

Note: Using the format below, the source must submit to the Division an analysis of all of the major source MACT ZZZZ applicable requirements that apply to this specific engine. **The analysis below is an example only**, based on a hypothetical new engine located at a major source of HAP emissions.

Determination of MACT ZZZZ requirements:

63.6585 Applicability

This subpart is applicable to Acme's engine since they are going to be operating a new stationary reciprocating internal combustion engine (RICE) at a major source of HAP emissions.

63.6590 What Parts of My Plant Does This Subpart Cover?

This subpart covers Acme's new stationary reciprocating internal combustion engine.

63.6595 When do I have to comply with this Subpart?

(a)(5) The engine must comply with the applicable emission limitations and operating limitations upon startup.

63.6600 Emission and operating limitations for RICE site rated at more than 500 hp

(a) The engine is subject to the emission limits in table 1a and the operating limits in table 1b. ACME will meet the emission limitations by reducing formaldehyde emissions by 76 percent and will maintain the catalyst such that the pressure drop does not change by more than 2 inches of H_2O at 100 % load plus or minus 10 percent from the pressure drop measured during the initial performance test and will maintain the temperature of the engine exhaust so that the catalyst inlet temperature is greater than or equal to 750 º F and less than or equal to 1250 º F.

The engine will be equipped with non-selective catalytic reduction and an air fuel controller to meet the emission limitations.

63.6601 & 63.6611 Requirements for 4SLB engines between 250 and 200 hp

These requirements do not apply.

63.6605 General Requirements

(a) The engine will comply with the emission and operating limitations at all times, except during periods of startup, shutdown and malfunction (SSM)

(b) The engine, including air pollution control and monitoring equipment shall be operating in a manner consistent with good air pollution control practices for minimizing emissions at all times, including during SSM.

63.6610 Initial performance test

(a) the performance tests specified in Table 4 (select sampling port and measure O_2, moisture and formaldehyde at inlet and outlet of the control device) shall be conducted within 180 days of startup.

(b) & (c) not applicable construction did not commence between 12/19/02 and 6/15/04.

(d) previous performance tests have not been conducted on this unit within two years, therefore, this provision does not apply.

63.6615 Subsequent performance tests

Subsequent tests will be conducted as specified in Table 3. No additional testing is required for 4SRB engines meeting the formaldehyde percent reduction requirements.

63.6620 Performance test procedures

(b) tests must be conducted at 100 % load plus or minus 10%

(c) tests may not be conducted during periods of SSM.

(d) must conduct three 1-hr test runs

(e) equation (e)(1) shall be used to determine compliance with the percent reduction requirement.

(f), (g) & (h) Not applicable

(i) engine load during test shall be determined as specified in this paragraph.

63.6625 Monitoring, installation, operation and maintenance requirements

(a), (c) & (d) Not applicable

(b) a continuous parameter monitoring system (CPMS) shall be installed to measure the catalyst inlet temperature. The CPMS will meet the requirements in § 63.8

63.6630 Demonstrating initial compliance

(a) initial compliance shall be determined in accordance with table 5 (initial performance test must indicate formaldehyde reduction of 76 percent or more, a CPMS must be installed to measure inlet temperature of the catalyst and the pressure drop and catalyst inlet temperature must be recorded during the initial performance test).

(b) pressure differential will be established during the initial performance test.

(c) Notification of compliance status will be submitted and will contain the results of the initial compliance demonstration.

63.6635 Monitoring to demonstrate continuous compliance

(b) except for monitor malfunctions, associated repairs, and required QA/QC activities monitoring must be continuous at all time the engine is operating.

(c) data recorded during monitoring malfunctions, associated repairs and required QA/QC activities must not be used in data averages and calculations to report operating levels, however, all the valid data collected during other periods shall be used.

63.6640 Demonstrating continuous compliance

(a) continuous compliance will be demonstrated as specified in table 6 (collect catalyst inlet temperature data, reduce that data to 4-hr rolling average and maintain the 4-hr rolling averages to within the operating limitation and measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop meets the operating limitation.

(b) deviations from the emission and operating limitations must be reported per § 63.6550.
If catalyst is changed the operating parameters established during the initial performance test must be re-established.
When operating parameters re-established a performance test must also be conducted.

63.6645 Notifications

(a) Submit notifications in §§ 63.7(b) & (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) thru (e) & (g) & (h) that apply by dates specified.

(b) Not applicable. Acme unit started after effective dated for Subpart ZZZZ.

(c) Submit initial notification within 120 days after becoming subject to Subpart ZZZZ.

(d) thru (f) Not applicable. Acme engine greater than 500 hp and subject to requirements in Subpart ZZZZ.

(g) & (h) Submit notification of intent to conduct performance test and notification of compliance status.

63.6650 Reports

(a) Submit reports required by table 7 (compliance report and SSM reports (if actions inconsistent with SSM plan)

(b) Not applicable, an alternate schedule for report submittal has been approved. Reports will be submitted with title v reports

(c) Compliance reports to contain the following information: company name and address, statement by responsible official certifying accuracy, date of report and beginning and end of reporting period, if SSM the information in 63.10(d)(5)(i), if no deviations a statement saying that, if no periods when CPMS out of control a statement saying that.

(d) Not applicable, using CPMS

(e) For each deviation the information in (e)(1) thru (e)(12) shall be provided.

(f) Applicable. Compliance reports are submitted with title v reports. Compliance reports under Subpart ZZZZ include all necessary info for title v deviation report with respect to Subpart ZZZZ requirements.

(g) Not applicable. Acme engine not firing landfill or digester gas.

63.6655 Recordkeeping

(a) Retain records as follows: copy of each notification and report (including all documentation supporting any initial notification or notification of compliance status), records in 63.6(e)(iii) thru (v) related to SSM, and records of performance tests and evaluations.

(b) CPMS records including records in 63.10(b)(2)(vi) thru (xi), previous versions of the performance evaluation plan required by 63.8(d)(3) and requests for alternatives to the relative accuracy test for CPMS as required by 63.8(f)(6)(i).

(c) Not applicable. Acme engine not firing landfill or digester gas.

(d) Will keep records required in Table 6 (monthly pressure drop readings, 4-hr averages of catalyst inlet temperature) to show continuous compliance with emission and operating limits.

63.6660 Form and length of records

(a) records must be in a form suitable and readily available for expeditions review

(b) records must be retained for five years

(c) records must be retained on-site for first 2 years, may be retained off-site for the remaining 3 years

63.6665 General Provisions

This engine must comply with the general provisions as indicated in Table 8.

CONCLUSION OF FINDINGS (EXAMPLE ONLY)

Since this engine is subject to the requirements of MACT Subpart ZZZZ. The engine will be installed with a non-selective catalyst to meet the formaldehyde reduction requirement of 76% or more. An initial performance test will be conducted within 180 days of startup to demonstrate compliance with the formaldehyde percent reduction requirement. During the initial performance test, the pressure drop across the catalyst will be measured. A CPMS will be installed to measure the catalyst inlet temperature. Continuous compliance will be demonstrated by keeping the 4-hr rolling averages of catalyst inlet temperature within the operating limitations and recording the pressure drop across the catalyst monthly and demonstrating that the pressure drop is within the operating limitation.

Records, notifications and reports will be submitted as required. To that end required reports and notifications include initial notification, notice of intent to conduct performance test, notification of compliance status, SSM reports (if required) and semi-annual compliance reports.